TRANSACTIONS

OF THE

AMERICAN PHILOLOGICAL ASSOCIATION.

1881.

VOLUME XII.

Published by the Association.

CONTENTS OF VOL. .XII.

I. — *On Mixture in Language.*

By W. D. WHITNEY,

PROFESSOR IN YALE COLLEGE.

A FEW years ago (1876), there appeared in England a volume (8vo. pp. viii., 126) on Mixed Languages, by a Mr. Clough, who calls it a " prize essay," though without betraying who should have awarded it a prize. It takes for its text a quotation from M. Müller, to this effect : " In the course of these considerations, we had to lay down two axioms, to which we shall frequently have to appeal in the progress of our investigations. The first declares grammar to be the most essential element, and therefore the ground of classification in all languages which have produced a definite grammatical articulation ; the second denies the possibility of a mixed language." (Lectures, 1st series, 6th edition, p. 86.) Mr. Clough's work is meant to be a refutation of this doctrine of Müller's ; and he enters upon his task thus :

" Certain philologists have stated that a mixed language is an impossibility, but the truth of the axiom may well be doubted ; indeed, as it would, perhaps, be impossible to find any modern language which contains no foreign elements, it is evident that the principles involved in the question are fundamental.

" Language consists of three parts — sounds, words, and grammar ; and a mixture in any one of these points produces a mixed language."

Mr. Clough, it will be seen, absolutely declines to take his stand upon the same point of view with Mr. Müller, and therefrom to criticise, and if possible prove unfounded, the latter's statements ; he will look only on his own side of the shield. For Müller, in the next paragraph to that quoted as above by his opponent, goes on to say : " There is hardly a language which in one sense may not be called a mixed language. No nation or tribe was ever so completely isolated as not to admit the importation of a certain number of foreign words. In some instances these imported words have changed the whole native aspect of the language, and have even acquired a majority over the native element." And, a page or two later : ".There is, perhaps, no language so full of words evidently derived from the most distant sources as English." Only he adds, still further on (p. 89) : " Languages, however, though mixed in their dictionary, can never be mixed in their grammar." Müller's view, then, plainly admits of being laid down in this form : 1. There is a certain part of every language, namely its grammar, which appears to be inaccessible to mixture ; 2. In virtue of this fact, a mixed language is an impossibility ; 3. Hence, the unmixableness of language is an axiom of linguistic science. Mr. Clough should have set before him the doctrine in some such form as the above, and then have addressed himself in an orderly manner to its refutation. Instead of so doing, he goes laboriously onward, gathering evidences of mixture, according to his definition of the term, which do not at all touch his antagonist ; since the latter, acknowledging them all, nevertheless declares that they do not constitute mixture according to *his* definition of the term. Mr. Clough does not disengage the merely verbal question — whether any one has good and sufficient reason for denying the name of " mixed " to a language which may have imported so much foreign material as to have " its whole native aspect changed " thereby — from the real question, as to whether there are in fact any limits to mixture, and if so, what and why ; and on this account, as well as by reason of his generally loose and credulous method, his work must be

admitted to contribute nothing of value to the elucidation of the subject.

That the subject, however, urgently calls for further elucidation, will hardly be denied. Thus, Lepsius, in the Introduction to his recent Nubian Grammar (p. lxxxv.), says : " It is at present an assumption usually made, that the vocabulary of one language may indeed to a great extent be transferred to another, but not its grammatical forms and their use. The linguistic history of Africa . . . shows this to be a prejudice ;" and he sets up a theory of the relations of African languages which seems to imply grammatical mixture on a very large scale. It is, indeed, this so sharp antithesis between the views of two highly considered authorities — the one stigmatizing as an assumption and a prejudice what the other lays down as an axiom — that has suggested the preparation of the present paper.

As regards, now, in the first place, the axiomatic character of any view that we may come to hold concerning the mixableness or unmixableness of language, the sooner such a claim is abandoned the better. The use of the term " axiom " is probably not to be seriously pressed against Mr. Müller. If not a mere slip of the pen (which it can hardly be, as he has let it stand in edition after edition since objection was raised against it), it is at any rate only one of those pieces of genial inaccuracy which, as he often pleads, he " has permitted himself." He means no more than that the doctrine under discussion seems so well established and is so generally accepted that it does not enter into his own mind to question it. He perhaps would designate it more deliberately as a fundamental principle, comparable not with " things equal to the same thing are equal to one another," but rather with, for instance, "the sum of the angles of a triangle equals two right angles." Even this, however, would be a great deal too much. It would imply that Müller, or some one else, had so grounded the unmixableness of grammar on the bottom facts of human nature and of the nature of language, had so demonstrated its inevitableness from the acknowledged laws of linguistic growth, that no well informed and sound-minded man could

have any inclination to doubt it.   How far that is from being
so is shown by the circumstance that Lepsius unceremoni-
ously rejects it.   No writer on geometry could throw over
the principle that the angles of a triangle equal two right
angles, and expect to command any attention for his reason-
ings.   But Lepsius's theory of African language is received,
as it well deserves to be, with all respect, as one that calls
for the most careful examination, and may perhaps be found
to compel acceptance.   It is interesting to see how Müller
himself handles his "axiom."   After asserting, as quoted
above, that " languages can never be mixed in their grammar,"
he immediately adds : " Hervas was told by missionaries that,
in the middle of the eighteenth century, the Araucans used
hardly a single word which was not Spanish, though they
preserved both the grammar and the syntax of their own
native speech."   This, from its position and bearings, must
be meant as an example of the evidence of the doctrine : a
curious "axiom" that, certainly, which rests in part upon
what some missionaries told somebody: perhaps they did
not know ; or perhaps neither party realized the importance
and wide bearing of the point in question.   Müller goes on
in the next paragraph : " This is the reason why grammar
is made the criterion of the relationship and the base of the
classification in almost all languages ; and it follows, there-
fore, as a matter of course, that in the classification and in
the science of language, it is impossible to admit the exist-
ence of a mixed idiom."   These statements seem neither
exact nor clear.   The value of grammar as a criterion by no
means rests solely on its unmixableness ; nor does that value
furnish a reason for denying the possibility of mixture: to
assert this is simply to reason in a circle.   There is no need,
however, of spending any more time upon the point.   To set
up the unmixableness of grammar as an axiom is to provoke
and justify its rejection as a prejudiced assumption ; if it is
to be forced on us, without discussion and exposition, as
something intuitive, it may be discarded in like manner,
without refutation, by one to whose inner sense it does not
commend itself.

In opposition to Müller's view, it may be claimed, without any fear of successful contradiction, that what we hold and are justified in holding as to the mixture of languages is a pure scientific induction from the observed facts of mixed languages, dependent for its authority and its extensibility to further cases, on the one hand, upon the number and variety of the cases already observed, and, on the other hand, upon the degree of success with which the facts they present have been reasoned out and put in connection with the fundamental principles of language-using and language-making. That, in either of these essential respects, the subject has been fully worked up, no one would be justified in asserting ; yet there is a considerable body of knowledge respecting it, enough to establish among students of language a prevalent doctrine, held with a fair degree of confidence, though also held open to modification by further evidence, or by the bringing-in of examples radically different from those thus far taken into account. What this doctrine is, what are its foundations, and what its limitations, a brief exposition may here help to show.

The general *rationale* of the process of borrowing out of one language into another is simple enough, and may be illustrated from any tongue. It rests, of course, with everything else in linguistic science, upon these fundamental principles : that spoken signs have nothing to do with conceptions except historically (that is, there is no internal, substantial, necessary tie between a given conception and a given sign for it) ; and that, consequently, a language has nothing to do except historically with a given race, but is, like any other element of acquired civilization, transmissible not only from generation to generation, but also, under favoring circumstances, from community to community, from race to race. The individual man is everywhere only seeking after a sign — not one existing φύσει, but one usable θέσει — by means of which he may communicate with his fellow-man respecting some object of common knowledge and conception ; and he is always ready to take it where he finds it handiest. If, then, we learn of or introduce to our own use something new from

outside our borders, unnamed in our speech, we are likely
enough, instead of making a name for it out of our own re-
sources, to adopt along with it some more or less successful
imitation of its native name: it may be some concrete thing,
like *tobacco, tea, canoe, shawl, alcohol;* or something more ideal,
institutional, like *sabbath,* *jubilee, algebra, taboo, check* (and
check and *checker* and *exchequer* are a striking example of the
exuberant life which such a chance adoption may win), and so
on.   There needs only a knowledge on the part of the speak-
ers of one language of a designation used in another language
and then a sufficient inducement to its use by themselves also,
and they proceed to use it: nothing in the nature of language
stands in the way of such an appropriation; it is in strictest
accordance with the method by which every speaker has ac-
quired every expression he employs.   Hence, wherever two
tongues come in contact, each is liable to borrow something
from the other; and more or less, according to wholly inde-
terminable circumstances: the measure and nature of the
intercourse, the resources of the respective tongues, their
degree of facilitating kinship or structural accordance, and so
forth.   And there are (as was noticed above) few tongues in
the world which are not to this extent mixed.   The language
of a civilized people like our own, having intercourse with
nearly all the other peoples of the globe, and laying them all
under contribution to its comfort or entertainment or zeal for
knowledge, shows a wonderful variety of items of speech thus
borrowed.   The degree is different in different divisions of
our language: thus, the English of India has quite a vocabu-
lary of native Hindu terms which are either unknown or un-
familiar to us and to most of the English-speakers of Britain;
the same is true of the English of South Africa; and the
same is true, to a certain extent, of the English of America.

   This might be called the sporadic or fortuitous method of
borrowing.   It is, however, only the same process on a larger
scale that goes on when any community makes itself the
pupil of another in respect to any part of its civilization.
Where institutions, beliefs, ceremonies, arts, sciences, and the
like, pass from race to race, names cannot help going with

them. The leading examples of this which history offers are familiar to all, and need only be alluded to. The spread of Christianity over Europe carried with it a certain number of Hebrew words, from the dead tongue of the Old Testament; but a vastly greater number of Greek and Latin words, from the living tongue of the New Testament, and from those of the European peoples who propagated the new religion. And who propagated also a higher civilization along with it; the two are not to be separated from one another; it is their joint influence that made the Greek and Latin vocabularies mines from which all the languages of Europe should freely draw new resources of expression. The extension of Moham- medanism has made Arabic occupy a similar position in ref- erence to the tongues of all Mohammedan peoples: greatly varied in detail, according to the variety of circumstances of each case, the combination of religious with general cultural instruction, and actual mixture of races. The relation of Chinese to Japanese and some other neighboring tongues is probably the next most striking example; then that of San- skrit to the vernaculars of India in general; and as minor in- stances may be cited the influence of Swedish upon Finnish, and of German upon Hungarian. There is no definable limit to the amount of accessions that may be brought in this way into a language; but they can hardly fail to leave untouched its forms, and the central kernel of its vocabulary, its words of commonest use.

A somewhat different case is that in which there takes place a noteworthy mixture of peoples: that is, a mingling in the same larger or smaller community of persons of discordant inherited speech. But here, too, the special circumstances are infinitely varied, with corresponding variety in the linguis- tic result. The circumstance which most directly represents the disturbing cause is the comparative number of the one and of the other element of population in the mixed community; yet this appears practically to be of minor consequence only. The blood of a people may, for example, become prevailingly different from what it was, by a process of gradual mixture, such as is now bringing a never ending current of immigra-

tion to our American shores, with only a minimal effect on
the original speech ; and, on the other hand, the great bulk of
a community may give up its old tongue for that of a small
intruded element, as in the case of the countries of southern
Europe which were Romanized and in consequence Latinized :
and between these two extremes lie numberless intermediates.
We may say, in a general way, that the outcome of a mix-
ture of population is of three kinds. First, under the govern-
ment of peculiar isolating conditions, the elements of the
mixed population maintain each its own linguistic indepen-
dency, with perhaps no more mixture of speech than takes
place between separate communities : as is the case, on a
large scale, under Moslem domination in the border-lands of
Turkish, Armenian, Persian, Syriac, and Arabic speech, where
almost every individual is bilingual, speaking his own inher-
ited dialect along with that of a neighbor, or with the general
official language added ; while another curious example is
said to have been furnished at a certain period by the discor-
dant speech of the Carib warriors and their captured wives.
Secondly, as in the case of the Latinized countries of south-
ern Europe, referred to above, and in numerous others, the
language of one division of the mixed community becomes,
almost without mixture, the language of the whole. We can
trace in a measure, but only in a measure, the particular influ-
ences, with their mode of action, that have brought about
such a result as this ; much about them is obscure and sur-
prising. Thirdly, there arises a notably mixed language,
containing abundant elements derived from both the one
and the other of the tongues whose speakers were brought
together to form the community.

This last case is evidently the only one with which we have
to concern ourselves here ; and of it a very conspicuous ex-
ample is our own English. There is no known mixed language
of developed structure and of high cultivation in which the
process of mixture has gone further. The two composing
elements were, so far as one could have estimated them in ad-
vance, of nearly equal force ; which of them would win the
upper hand might have appeared doubtful — as, indeed, it

long did appear doubtful. We may expect to find English, then, a normal illustration of the processes of language-mixture. It ought to be the instance most thoroughly studied and best understood in all its parts; for the original ingredients of the mixture are perfectly known, being both recorded in earlier literatures ; and the steps of combination are set forth all along in contemporary documents. It is, perhaps, better understood than any other similar case in language-history ; yet that is far from implying that it is fully mastered, or that opinions are not still at variance respecting matters of prime importance connected with it : thus, for example, as to how much of the decay and loss of former Germanic structure in English is due to the mixture ; as to whether the process has or has not extended to the grammar of the language ; as to the effect of foreign influence on the structure and arrangement of the English sentence ; and so on. The subject still calls for skilful and wary investigation, in order to be comprehended in its details ; but some of the main results for the general theory of language-mixture may perhaps already with sufficient certainty be gathered off the surface of the phenomena it exhibits.

The first and most important of these is, that the case is not, after all, essentially different from those already noticed. We have still one language, namely the Anglo-Saxon or native English, borrowing and incorporating crude material from the other, the intrusive Norman French. Of a meeting of the two ingredients on equal terms, and their amalgamation in any part, either of grammar or of vocabulary, the one contributing an element and the other another element of the same kind, there is no sign whatever. This appears most clearly in the system of inflection : not a trace of Romanic conjugation or declension shows itself in the new mixed speech ; the imported verbs and nouns are assimilated entirely to those of the borrowing tongue, being varied in form with whatever apparatus the latter has still left. But it appears also in the system of derivation : such suffixes and prefixes as native English retained in actual living use for the making of new words, it proceeded to apply to the borrowed material ; and

the derivatives so made are no more to be accounted as of
"mixed" character than are the inflectional forms with Ro-
manic stems and Germanic endings.   And the same thing
is to be seen not less clearly in the stock of words: here, too,
whatever is more formal or structural in character remains
in that degree free from the intrusion of foreign material.
Thus, of the parts of speech, the pronouns and articles, the
prepositions and conjunctions, continue to be purely Ger-
manic; and, in the more general vocabulary, the same is
true of the numerals.   In brief, the borrowing is of the
grosser elements of speech, of raw material, to be worked
into proper syntactical shape for direct use by the word-
making processes of the borrower.   The exemption of "gram-
mar" from mixture is no isolated fact; the grammatical
apparatus merely resists intrusion most successfully, in virtue
of its being the least material and the most formal part of
the language.   In a scale of constantly increasing difficulty
it occupies the extreme place.

Now what is thus true of English is believed to be es-
sentially true also of every other observed case of language-
mixture.   Such a thing as the adoption on the part of one
tongue, by a direct process, of any part or parts of the formal
structure of another tongue has, so far as is known, not come
under the notice of linguistic students during the recorded
periods of language-history.   So far as these are concerned,
it appears to be everywhere the case that when the speakers
of two languages, A and B, are brought together into one
community, there takes place no amalgamation of their speech,
into A B; but for a time the two maintain their own several
identity, only as modified each by the admission of material
from the other in accordance with the ordinary laws of mix-
ture: we may call them A^b and B^a; and finally, one of these
two prevails over the other, and becomes the speech of the
whole community: this is still either A^b or B^a, and not A B.

This, then, is at least a general principle, derived by legit-
imate deduction from a considerable number and variety of
cases.   Into an absolute law of universal language, however,
it can be converted only by a successful analysis of the psy-

chological processes involved, and a demonstration that in no conceivable case could their action lead to a different result. And until that work is accomplished, we shall doubtless meet now and then with the claim that such and such a case presents peculiar conditions which separate it from the general class, and that some remote and difficult problem in language-history is to be solved by admitting promiscuous mixture. Any one advancing such a claim, however, does it at his peril; the burden of proof is upon him to show what the peculiar conditions might have been, and how they should have acted to produce the exceptional result; he will be challenged to bring forward some historically authenticated case of analogous results; and his solution, if not rejected altogether, will be looked upon with doubt and misgiving until he shall have complied with these reasonable requirements.

It also seems a fair and obvious inference that the more discordant the structure of the borrowing language and the language borrowed from, the less will be the chance that any items of structure should be transferred from the one to the other. As between two nearly related dialects of the same tongue, the possibility of transfer would be greatest; the slight existing differences might be with least difficulty disregarded. French and English, though ultimately related, and corresponding with one another in all the main features of structure, were yet, as we have seen, sufficiently held apart by their difference in details to prevent structural mixture — just as effectively, indeed, as Arabic and Persian, or Turkish and Arabic or Persian, where the discordance is much profounder. If we dispute, therefore, the validity of an *à priori* claim that a prefix-language and a suffix-language — as, for example, a South African and a Hamitic tongue — might mingle in a manner seen to be impracticable in the case of two Indo-European dialects, we do not at all set up unmixableness of grammar as a self-evident truth; we are only refusing to admit the more difficult of two processes until the less difficult shall be proved possible.

It appears, then, that in Müller's alleged "axiom" there is

perhaps (until the contrary be shown) so much legitimately deduced truth as this : that two languages never meet and mingle their grammar on equal terms. But in the form in which he puts it, that " languages can never be mixed in their grammar," it must be refused acceptance ; for grammatical mixture by a secondary process actually does take place, and its effects are clearly to be seen in English — as we may next proceed to notice.

Whenever crude material of foreign origin is introduced by borrowing into the full vernacular use of a language, it becomes an integral part of that language, undistinguished, except to reflective and learned study, from the native material. It enters, for example, into the mind of no ordinary English speaker to recognize some of his words as coming from a Romanic source and others from a Germanic. To him, the relation of *pure* and *purity* and of *envy* and *envious* is the same with that of *good* and *goodness* and of *child* and *childish*. But he has in everyday use so many words plainly made from others by the added endings *ness* and *ish* that those endings are distinctly before his mind as by their addition impressing certain modifications of meaning ; and he therefore goes on to make with them, by analogy, new words like those already in his use. It needs, then, only that he have taken in pairs enough like *pure, purity*, and *envy, envious*, and he will in the same manner and for the same reason make new words with *ity* and *ous* — heedless, because ignorant, whether the primitives to which he applies those endings are Romanic or Germanic by origin. Such new words are made, to be sure, more freely and abundantly from Romanic primitives, both because the analogies are in themselves closer and more suggestive, and because the making is in part by the learned, who know and are mindful of the proprieties of combination, and whose influence is cast against the admission and retention of what they deem improper combinations ; and hence we have, of words not French, but made of French elements on our own soil, *duty* beside *beauty*, and *duteous* and *beauteous* beside *envious*, and so on in abundance. But we have also not a few like *oddity* and *murderous*, made with

Romanic formatives from Germanic primitives : well known examples showing other affixes are *atonement, eatable, talka-tive, disbelief, retake, derail.* Such cases are in part isolated ones, too sporadic and fortuitous to prove much respecting the character of the tongue in which they occur ; but in part also they are specimens of classes, and unmistakable evidences that the resources of formation of a Romanic tongue have been adopted by a Germanic tongue and made its own re-sources of formation likewise. Perhaps the most notable of their class are the trio *ize, ist, ism,* which have become real living English formative elements, used with constantly in-creasing freedom in making new words, and for popular as well as for learned use.

No language of which this can be said has the right to claim that it has successfully maintained against mixture the purity of its grammar. For there is no good reason whatever for limiting (as Müller, in order to save his "axiom" from being proved untrue even as a fact, seems inclined to do) the name of grammar to the inflective apparatus of a language ; it belongs equally to the derivative apparatus. There is no line to be drawn between the added elements that make a person or tense or number, and those that make a degree of comparison, or an ordinal, or an adverb, or a noun or adjec-tive. Moreover, it is not inconceivable that a foreign mode of inflection should get itself introduced into a language, after the same fashion as a foreign mode of word-making. We have received into English some classical singulars and plu-rals together — such as *phenomenon* and *phenomena, stratum* and *strata ;* and there is no necessary reason, none inherent in the nature of things, why these cases might not be numer-ous enough to prompt an extension by analogy to new for-mations. Doubtless this is more difficult, and less likely to occur, than the extension of use of derivative endings ; but so is the latter more difficult and less likely than the taking in of new words ; and if the one difficulty has actually been overcome by the pressure of circumstances, the other can by sufficient pressure be in like manner overcome.

While, therefore, we find no warrant in the historically

authenticated facts of language for admitting a mixture of the grammar of two languages by a first process, we see clearly that any language having a developing structure may become mixed in grammar secondarily, by processes of growth involving the use of borrowed material. In whatever department there is growth, thither the foreign elements can penetrate. This appears equally in those parts of the vocabulary which are most akin with grammatical structure. Form-words are no more taken in directly than are formative parts of words ; yet there is hardly a class of such in English that has not come to allow intrusion from the French. It is part of the living growth of English expression to make prepositions and conjunctions out of other material — nouns and adjectives and adverbs ; and hence we have Latin stuff in so common an adverb-preposition as *around,* and, still more strikingly, in *because,* one of the commonest and most indispensable of our subordinating conjunctions. No force of which we have knowledge could have brought an adverb of degree — for example, *très* in its older form — straight out of French use into English ; but its present equivalent, *very,* is a pure French word ; and the equally French word *real* is in vulgar use undergoing a precisely similar reduction to the same value (in " that's *real* good," and the like). Into the very citadel of that most exclusive class of words, the numerals, has been intruded the Romanic ordinal *second;* and the use of an indefinite pronoun, *one* (in " *one* must not believe all *one* hears," and the like), appears at least to rest in considerable measure on the French phrases with *on,* by a half-blundering literary imitation. And these are but specimens of a considerable class of similar facts.

It must not fail to be noticed that the structural elements thus taken into our language from a foreign source are only such as are analogous with others already in use among us : suffixes, having the same office with Germanic suffixes, form-words corresponding in their value with those of native origin ; and so on. This follows, indeed, from the method of analogy with existing formations by which, as already explained, the new elements are brought in. There is nothing in English

borrowing to give any support to the doctrine that one tongue can learn from another a grammatical distinction, or a mode of its expression, formerly unknown : for instance, the prepositional construction of nouns, period-building with help of conjunctions, formation by affix of comparatives or abstracts or adverbs, or of tenses or numbers or persons. Whether, however, the possibility of this, or of any part of it, is to be rejected altogether, under all circumstances, is another question, to which we may well be slow to return a categorical answer. To take a simple illustration or two : ought we to suppose that a tongue having no diminutives could take in from another words enough like *lamb* and *lambkin*, *brook* and *brooklet*, *goose* and *gosling*, to have this distinction of degree so impressed and taught as to lead to its independent use? or that something of a " sense for gender " could be caught from borrowed couplets like *prince* and *princess*, *tiger* and *tigress ?* Or, again, is it conceivable that there may have been a period in the history of Chinese when the borrowing of plainly agglutinated words was able to quicken the Chinese itself into the adoption of agglutinative processes? While perhaps unwilling to say either yes or no, until after a more complete collection and better comprehension of the phenomena of universal mixture, we may at any rate assert that no unquestionable instances of such results from the cause in question have yet been brought to notice, and that their occurrence would appear to stand at the very summit of the scale of difficulty. A necessary part of this whole investigation is the determination of a general scale of comparative ease or difficulty for immediate borrowing, and for the indirect effects of borrowing ; upon which might follow in any given case the ascertainment of how far its degrees had been surmounted, and under the pressure of what special circumstances. By universal consent, what is most easily transferred from one tongue to another is a noun ; the name of a thing is language-material in its most exportable form. Even an adjective, an attributive word, has a more marked tinge of formal character, and is less manageable ; and a verb, a predicative word, still more : this part of speech is, in fact, to no small extent wanting

in human languages. In English borrowing, to be sure, it has been comparatively easy to add adjectives and verbs to nouns, because of the direct convertibility of our nouns into adjectives (a *gold* watch, a *leather* medal, etc.), and of our nouns and adjectives into verbs (to *tree* a raccoon, to *grass* a plot of ground, to *brown* a complexion, to *lower* a price, etc.), without any change of form; but under different circumstances the degree of difficulty may be quite other; and we see the Persian, for example, receive no Arabic verb, but always add an auxiliary of native growth to an Arabic adjective or noun, in order to make a *quasi*-Arabic verbal expression. Next to the verb, among parts of speech, would come the adverb, with the yet more formal prepositions and conjunctions, and the pronouns ; and, not far from these, the formative elements proper, the prefixes and suffixes, first of derivation and then of inflection ; and last of all, the fundamental features of grammatical distinction. Respecting all these, it is extremely questionable whether they ever pass from tongue to tongue by a direct process ; and no transfer of the last of them, even by a secondary process, has ever yet been demonstrated.

As to the effect which mixture may have on the yet less material parts of a language, as the order of its words and its modes of construction, we cannot speak with too much caution. Here is where real results are hardest to analyze and trace to their causes, and where claims lightly and thoughtlessly made are least easy to disprove. Of claims thus made, the study of language affords an abundance. There are those who seem to hold that a language is, as it were, always watching its neighbors, ready to imitate whatever in them it sees to be worthy of imitation. If, for example, the Persian uses an *i* to connect a noun with its qualifying adjective, the construction must be modelled on a Semitic one ; if the Rumanian or Scandinavian has a suffixed article, its suggestion came from Turkish or Finnish speech ; and so on.[1]

---

[1] Striking illustrations of this are to be found in Edkins's "China's Place in Philology" (a model of nearly everything that is unsound in language-study). Thus, speaking of gender, it says: "this characteristic of the Sanskrit, Greek, and Latin tongues has been derived from the influence of the earlier Semitic

Such explanations betray an absolute and utter failure to comprehend the way in which languages live and grow, and are able to influence one another. The users of language in general are neither grammarians nor comparative philologists ; they cannot describe the usages of their own tongue ; they are wholly unaware of and supremely indifferent to the usages of another tongue, even of one with which they have some practical acquaintance. That analysis and comparison which should point out differences and suggest imitation is the work only of reflective study. A prefix-language, for example, might live in contact with a suffix-language forever without finding out the latter's character, and without adopting a single item of its methods — until, perchance, it should have borrowed suffix-words enough to create in its own usage an analogy which it might proceed in entire unconsciousness to follow. Where there is learned cultivation, deliberate investigation of language and imitation of literature, the case is of course somewhat changed ; here there may take place a conscious and artificial borrowing, or imitation, which will remain on the whole confined to the learned class and to learned styles, although something of it may perhaps filter through by degrees into popular usage. In this way, for example, Latin and Greek have had a certain influence on the literary usages of various European languages, and French has affected English and possibly German ; but how small is the amount! and how little of it, if anything, has reached the phraseology of common life!

If we would realize the baselessness of the assumption of syntactical imitation, we have only to consider an actual case or two of the kind, in its bearing on ourselves. The French has a trick (it may fairly be called so) of putting the object of a verb, provided it be a pronoun, before the verb, instead of after it, as is the case with a noun-object : now can any one conceive of the English or the German as catching that trick,

type " (p. 101). Further : " the Greek seems to be specially founded on the Chinese in regard to tones " (p. 359) ; " the syntax of the European languages is a mixture : it contains Chinese, Semitic, and Turanian principles " (p. 358) — with much more of the same sort.

notwithstanding the geographical contact on either hand, and all the knowledge and admiration of French style that accompanies it? Again, the German has striking peculiarities as regards the position of its verbs, putting an infinitive or participle at the end of a clause, though at the cost of remote separation from the auxiliary which it ought to accompany, and also setting the personal verb itself at the end of the clause, far from its subject, provided the clause be a dependent one; and these peculiarities, less marked at an earlier stage of the language, were establishing themselves more firmly at the very time when German was, as it were, groaning under the oppressive influence of French, to the structure of whose sentences both were alike repugnant; and here, again, any one may be defied to imagine a process by which English or French should be led to copy the German arrangement. Yet such a result would be vastly more easily attained than the production by imitation of a suffixed article.

A sample point, one of those not infrequently brought up in connection with this subject of the influence of one language on another, is the place of the genitive (so-called) with reference to the noun qualified by it, as either preceding or following that noun: thus, in Latin, *patris filius* or *filius patris;* in German, *des Mannes Sohn* or *Sohn des Mannes;* or, in uninflected juxtaposition, whether in a given language 'a ring for the finger' is *finger ring* or *ring finger;* the varying arrangement in related tongues is wont to be referred to mixture as cause. But there are a multitude of special questions involved here, which would have to be settled before we assumed to decide any particular case. Is there any such thing, in the first place, as a natural order for two nouns standing in such a relation to one another? It would seem, rather, to be a matter of indifference until the formation of a habit of speech accepting the one order in preference to the other; at the outset, the natural relation of the two objects named would be a sufficient guide to what was meant by naming them together: thus, for example, as between *house* and *top*, the latter is so obviously the thing belonging to the

other that 'top of a house' is, in default of a linguistic usage to the contrary, equally signifiable by *house top* and by *top house.* Then, what is the relation of genitive-position in a given tongue to adjective-position, to the order of compounded words (if such are formed), and to the other usual modes of arrangement? Further, has a genitive its distinctive and sufficient sign, independent of position; and if so, of what origin is the sign, and what influence has that origin contributed to the determination of usual position? How obligatory is the law of position? Is there any difference in the treatment of genitives of different kinds: of those used more attributively and those used more appositively, of the possessive genitive and the partitive, of the subjective and the objective, of a short genitive and a long one, of the genitive of a common and of a proper noun, of the genitive of a noun and of a pronoun — and so on? Finally, are any changes of habit in any of these respects to be traced during the historical period of the language in question, provided there be such a period? All these matters fall so fully into the category of established usages, gradually fixed and gradually modifiable by causes arising within the language itself, that an extremely careful and far-reaching investigation would appear to be called for before we decide what value should be attributed in any given case to the place of the genitive, or whether it should be regarded as of any value at all in the history of the language, in the way of indicating either relationship or mixture.

Another syntactical point which has been brought into the discussion of mixture is the order of the essential elements of the sentence — the subject, the verb, and the modifiers of the latter, especially its object. Lepsius, in his Introduction already quoted (p. lxxxiii.), speaks of it thus: "Of essential consequence in two languages which are to come to a mutual understanding (*die sich verständigen sollen*) is the same order of words. If, therefore, this is different in the two, the one must give way and the other prevail. In the negro languages everywhere, the verb stood originally in the simple sentence between subject and object. This position is maintained in

most of the mixed languages [i. e. in the languages of the
great central zone of Africa, which Lepsius holds to have
taken shape by mixture of South-African and Hamitic ele-
ments], with exception of the most eastern ones . . . where,
evidently under Hamitic influence, it is given up and replaced
by the Hamitic order [namely, with the verb at the end]."

In the expression here used, of two languages "coming to
a mutual understanding," as in some of those employed by
the same author in other places, is implied a theory of mix-
ture quite different from that which, as explained above, is
suggested by all the best-understood historical examples of
mixture. He compares it (p. lxxxii.) with what "still hap-
pens every day, when two individuals of different tongue are
thrown together and obliged to understand one another:"
all grammar, namely, is laid aside, or represented only by
gesture and grimace, and the names of things and of the
commonest acts, in a mutilated form, are adopted in common
use. Now something like this is undoubtedly the case when
the two individuals have a chance meeting, or when they fall
in with one another only from time to time; but not at all,
if they come to live together (like Robinson and Friday): in
that case, it will inevitably be found after a while that one of
them has learned to understand and use the language of the
other; they will speak the same tongue, indeed, but it will be
no mixed jargon ; it will be substantially the original language
of one of the two individuals, somewhat modified (but not
mixed) in its grammar, and with more or less of material
brought in from the other language. That is to say : the
result will be precisely accordant with that which, as was
seen above, has been found normally to follow when two
communities mix: not A B, but either A^b or B^a. The one
party, after a certain period of fluctuation and struggle, aban-
dons its own tongue and puts in its place the strange tongue
which it has learned. When members of two communities,
each of which maintains its own speech for its own purposes,
meet occasionally for special ends, there can grow up a jargon
for their joint use, like the "pigeon English" of the counting-
houses of China; but no such barbarous result has ever been

shown to come from that more intimate association which makes a family or a community ; and until such an instance is found, no one has a right to assume that two grammatical systems, or two vocabularies, can meet and mingle on equal terms. The resistance of one of the two parties to accepting frankly and fully the speech-usages of the other is practically less in every instance than their joint resistance to a mixture of usages. And when one — be he individual or community — learns a new language, he learns not its individual signs only, but also its phraseology, its inflections, its syntax, the order of its words : these are all part and parcel of the same process. That the new speakers may show a degree of tendency, while their speech is still a broken one, to cast the new material into their own familiar order, need not be denied ; but it is in the highest degree improbable that their errors in this respect should have any traceable influence on the usages of the rest of the community : after subsisting for a while as errors, they will disappear. The language which proves strong enough to impose itself on those to whom it is not native will have no noticeable difficulty in making them accept its own order of arrangement.

On the whole, we are justified in refusing for the present to admit the power of mixture to change the order of words in a language, except in the same secondary and subordinate way in which the formative apparatus may come to be changed in consequence of mixture : namely, by contributing to the forces which are slowly and almost insensibly determining the growth of a language an element which may finally work itself out into visible consequences. If the French can have come to violate the primeval law of Indo-European position[1] so far as to put its adjectives prevailingly after the nouns they qualify ; if the German can establish so peculiar rules of place for some of its sentence-elements by internal development, against the example and influence (assuming that it be proper to speak of such) of all the languages about it, related and unrelated — then it must be very dangerous to charge upon foreign influence a difference of arrangement

---

[1] See Delbrück's *Syntaktische Forschungen*, iii. 35.

which any tongue in any part of the world may exhibit as compared with its relations.

These, it seems to me, are the conclusions respecting mixture to which we are led by a consideration of the facts thus far brought to light. What is needed in order further to advance our comprehension of the subject is, first of all, a new and more penetrating examination of the facts themselves, with a distinct eye to the general principles that are in question. Nothing could be a better introduction to this than an exhaustive study of the English as a mixed language (for nothing deserving such a name has ever yet been made); to which would be added a like study of the other notable historical cases: and thus the way would be prepared for a thorough discussion of the philosophy of mixture. But it is altogether probable that the result would only be to establish on a firmer basis the principles provisionally stated above, and to cut off all possibility of the assumption, for any stage or period in the history of language, of a mingling in the same tongue of diverse structural elements, forms or formwords, otherwise than by the same secondary process, of growth involving borrowed and assimilated material, which we see to have brought Romanic ingredients into the grammatical structure of English words and sentences.

II. — *The Home of the Primitive Semitic Race.*

By CRAWFORD H. TOY,

PROFESSOR IN HARVARD UNIVERSITY.

THE linguistic sense of the word "Semitic" is well fixed; it includes all languages of the type of the Arabic, — that is, Babylonian-Assyrian, Aramaic, Phenician-Canaanitish, Arabic, Sabean, and Geez, or Ethiopic. Its ethnological sense is not so generally agreed on. While most writers use it of all the peoples who spoke or speak the languages above named, by some it is restricted to those who are mentioned in the table of nations in the tenth chapter of Genesis as descended from

Shem, the son of Noah. This difference of signification, how-
ever, amounts to little or nothing in an inquiry into the origi-
nal home of the Semitic race. The list given in the table
of nations includes most of the peoples whose language is
Semitic, namely, the Assyrians, the Arameans, the Hebrews,
and the Arabians ; if the original abode of these could be
discovered, we may be sure that it would include all Semites.
Of the nations omitted in the table, the Babylonians would
certainly go along with the Assyrians ; and the Phenicians,
Canaanites, Philistines, and Moabites (if they were Semites)
could not be separated from the Hebrews ; nor the Sabeans
and the Geez from the Arabians. On the other hand it may
fairly be assumed that the regions Elam and Lud, assigned
to Shem in the table, but later occupied by Indo-Europeans
(though the geographical position of Lud is doubtful), were
once peopled by a race who spoke a Semitic tongue, and were
not different in blood from their Babylonian and Aramean
neighbors. If a region could be found once inhabited by the
primitive people from whom came the Assyrians, the Ara-
means, the Hebrews, and the Arabs, that would be accepted as
a satisfactory solution of the question as to the cradle of the
Semitic race. I shall use the term Semitic here in the
wider ethnological sense, to include all the peoples who spoke
Semitic tongues, and only these ; but, for the reason just
given, those who prefer the definition of the table of nations
can so understand the word without materially affecting the
arguments that will be considered. The determination of
the original dwelling-place of one of the great races is of
course a matter of no little importance for the early history
of man. •We have lately seen how much light has been
thrown on the civilization of the Hebrews by the definite
fixing of their Babylonian or Mesopotamian origin ; but we are
still embarrassed by the uncertainty as to the point from
which the Phenicians came. If we knew the starting-points
of the Egyptians, the Semites, the Indo-Europeans, the
Turanians, and the Chinese, we should have made a long step
backward toward the beginning of our history. These wide
·problems have something specially attractive in them, and

have received their due share of attention. The number and
diversity of the theories are in some cases in proportion to
the number and complicated character of the data, in other
cases in proportion to their fewness. In respect to the primi-
tive home of Egyptians, Turanians, and Chinese there is room
for a good deal of arbitrary hypothesis and fancy, because
neither the linguistic, nor the ethnological, nor the historical
relations of those families have been satisfactorily worked out.
Even in the case of the comparatively well known Indo-
European family, almost every separate language of which
has been carefully studied, and where comparisons and infer-
ences are guarded by strict scientific rules, the theories of
geographical origin have ranged over a good part of Asia and
Europe. Semitic scholars also have not failed to contribute
their share towards the solution of the general problem. The
conditions in this case cannot be considered specially un-
favorable. The territory occupied by the Semitic family is
inconsiderable in extent. The race has never pushed far
beyond its early historical borders, except in the case of the
Geez and in very modern conquests in the time of Islam ; and
these movements have not been attended with any marked
linguistic or other changes. The various dialects have been
studied with thoroughness (with the exception of the Baby-
lonian-Assyrian, in which the chief interest has up to this
time been historical and literary), and the era of grammatical
research is just beginning ; the literary material is abundant,
and the historical records are not exceeded in distinctness
and antiquity by those of any people in the world, unless it
be the Egyptian. The problem of the original Semitic home
is not, therefore, comparatively difficult, and might seem at
first to be even very easy. That it is not, however, free from
difficulty appears from the number of different solutions of it
that have been given. In truth, at the outset, when we recol-
lect the gray antiquity to which the primitive Semitic mother-
race must go back, and the great changes that may have taken
place between its first breaking-up and the beginning of
historical times, it is evident that great caution is necessary
in attempting to reconstruct a period that lies so far away from

us and the conditions known to us. Even in the limited geographical and linguistic sphere of the Semites, the data are sufficiently diverse and obscure to cause no small perplexity. Different investigators have reached different results as they have fixed their attention on different sets of facts, and we have a separate theory embodying each separate aspect of the phenomena. It may be worth while to inquire what definite conclusions, if any, have been gained by these investigations up to the present time. Even if no one of them is quite satisfactory, it is possible that each may have contributed something towards the solution of the problem, either by introducing some new material, or by excluding untrustworthy matter, or by fixing more definitely the canons of the investigation.

The data for the determination of the home of the primitive Semitic race have been taken from four sources : national traditions, the grammar of the primitive tongue, its vocabulary, and the earliest known general historical and linguistic relations. Let us look at the theories that have been based on these four sets of facts.

1. A tradition, if it is distinct and ancient, may furnish valuable historical material. Though it is usually confined to the fortunes of the people among whom it exists, it may go outside of these, and preserve the recollection of other related peoples, as when the Phenician records speak of the Egyptian Taut. This example suggests, at the same time, the necessity of carefulness in drawing conclusions from such statements. If, now, the various Semitic nations had preserved distinct traditions, each of its own origin, and each of its relations with its sisters, it might be possible to learn from them the place where they once all dwelt together. But this is by no means the case. Of four of these nations — the Arameans, the Arabs, the Sabeans, and the Ethiopians — the records of early times, whatever may have been their value, have perished, probably beyond recovery. The remains of the Aramaic language belong entirely to Jewish and Christian literature. Of all the Syrian kingdoms that flourished in Mesopotamia and as far west as Damascus, there is not one that has left

any account of its belief concerning the beginning of things; though there is good reason for holding that, outside of the local Aramean history, this belief was the same as that of the Babylonians and Hebrews. The Arabians became a literary people at so late a stage of their history that they cannot be said to have any national recollection of remote times. What the Koran and Tabari give of primeval history is partly a distorted form of the accounts in the Jewish and Persian scriptures and traditions, partly a dim and unintelligible local tradition. According to Tabari the Semites comprise the Arabians, the Persians, and the white races; the Japhethites, the Turks, the Slavs, and Gog and Magog; and the Hamites, the blacks; but this is a modern ethnological table, and does not at all represent an Arabian tradition. There was, indeed, a widespread opinion among the Arabs that their language was a daughter of the Syriac, but this was not based on any knowledge of early connection between the two peoples; it was hardly anything more than the recollection of the literary debt they owed the Syrians, from whom they received their first scientific stimulus. They knew nothing of a time when they had lived elsewhere than in the region and under the conditions that were familiar to them in Mohammed's time. The Sabeans and Ethiopians are equally destitute of ancient traditions. The mythological system of the former of these shows some connection with the Babylonian, — what, has not yet been determined; but the material given by the votive, mortuary, and other inscriptions, up to this time discovered, is local and meagre, and there is not much hope that anything reaching back to a great antiquity will be brought to light. As the Ethiopians passed over from Southern Arabia into Africa at a comparatively late period, it is likely that their stock of tradition was identical with that of the Sabeans; but, whatever it was, nothing of it has been preserved. All the Ethiopic literature is Christian, and none is earlier than the fourth century.

The southern Semites have thus preserved nothing of such traditional matter as they may once have possessed, and we have to look to the northern branch of the family for informa-

tion on our question. All the facts now known to us go to show that there existed a common body of tradition in this northern branch, remnants of which are found in the literary remains of the Babylonian-Assyrians, the Hebrews, and the Phenicians. The combined literatures of these nations present a remarkably large mass of tradition, legend, and myth, from which, nevertheless, it is not possible to get trustworthy information as to the origin of the race. The least ancient and most distorted form of the tradition is the Phenician, — mainly fragments (preserved by a Christian writer) of a Greek translation of a digest, which a comparatively late Phenician author made of his country's mythology and cosmogony. These fragments show a close connection between Phenicia and Babylonia, but they teach us nothing directly of the origin of the Phenicians or of their relations with other Semitic nations. The rôle assigned to Taut as inventor of writing, and to Eisiris (if he be Osiris) as establisher of the Semitic triliterality, points to some connection with Egypt, which, however, need mean nothing more than that the Phenicians took their alphabet from the Egyptians ; nor does it appear that more than this is involved in Sanchoniathon's calling Eisiris the brother of Chna (Canaan), or Phœnix. On the other hand Greek tradition connects the Phenicians with the Persian Gulf, that is, with Babylonia.[1]

As was remarked above, it is altogether probable that the North Semitic peoples possessed a common body of myth and tradition, remains of which we have in the Babylonian literature and in the Hebrew book of Genesis. In addition to this, each people doubtless had accounts of its own early history, which were naturally more or less legendary, and may have run back into myth ; but of these the Hebrews alone have preserved a tradition of national origin, with a consciousness of a point where the nation began to exist. In such a mingling of myth, tradition, and history, as we have

---

[1] Lepsius's identification of the Phenicians with the non-Semitic Puna of the Eastern African coast, opposite the Arabian Aden (*Nubische Grammatik, Einleitung,* pp. 95 ff.), involves many difficulties. In respect to our question, the same remark applies to his theory as to the genealogy of the table of nations in Genesis.

in these accounts, it is hard to find any trustworthy historical
data. It is, moreover, the opinion of the best Assyrian schol-
ars that these cosmogonic and other early narratives, certainly
down to and including the flood, are not Semitic at all, but
Sumerian-Akkadian. We shall search them in vain for hints
of Semitic history unless we may suppose that they received
a national coloring at the hands of the Babylonians and He-
brews. And even with this supposition we learn nothing of
the origin of the Semites. The Hebrew narrative in Genesis
(with which the Babylonian was probably identical) places the
first abode of man in the region of the Euphrates and the
Tigris, and it would be natural to infer that the Babylonians
looked on this region as their own first home; but as this
might be only the result of a desire to represent themselves
as autochthons, it could at best show that they had no dis-
tinct recollection of any other home. The succeeding tradi-
tion, however, set aside the supposition of an Edenic origin ;
for, after the flood, when all mankind but the chosen few had
been destroyed, the ark rested in a place remote from Eden,
and humanity made its second beginning there. This new
centre of the race was Armenia according to Berosus, Mount
Nisir according to the cuneiform narrative of the flood
(located by Friedrich Delitzsch "east of the Tigris, beyond
the lower Zab, about in the region between the thirty-fifth and
thirty-sixth parallels of latitude"), and Ararat according to
the book of Genesis. From this point then, according to the
tradition, the Semites must ultimately, along with all other
nations, have come ; but when and how and to what place
did they come? Noah, according to Genesis (in what seems
to be a purely Hebrew account), immediately after leaving the
ark engaged in the culture of the vine; but, not to speak of
the wide area over which the vine may be grown, Noah repre-
sents not the Semites but all humanity. It is in the tradition
of the dispersion at Babel that the postdiluvian history of
man is carried on.[1] The assembled human race, it is there

---

[1] Though the genuineness of Berosus's account of the dispersion has been
doubted, it is probable that it represents a real Babylonian tradition substantially
the same with that of the Hebrews.

said, journeyed from some unnamed point to a place "in the east," came to a plain in Shinar, or Southern Babylonia, and dwelt there till they were visited with confusion of language, and were dispersed over the face of the earth. Nothing is here told us of the directions in which the various nations went. We should naturally suppose that the tradition would retain the Babylonians in Shinar, and send the other peoples abroad; and this is probably its meaning; but there is no indication of race-feeling, no hint of an original unity of Babylonians, Arameans, and Arabs. Here, again, it can excite no surprise that the Babylonians made their own land the scene of the dispersion, the centre of life; and the whole account is too little historical to furnish reliable data for the determination of the original home of the Semites. The same remark must be made of Berosus's list of dynasties: it is purely Babylonian (this word being used in a geographical sense); it shows no consciousness of race-differences; it is at best a localized general Semitic, or a Sumerian tradition, whence we can extract no history of the Semites.

There remains the table of nations in the tenth chapter of Genesis,—a document unequalled in ancient literature for the breadth and accuracy of its ethnological scheme, and exhibiting, what we have not found elsewhere, a sense of race-unity. Its date is uncertain; but we shall probably not be far wrong if we regard it as embodying the ethnological ideas of a Jewish writer who was master of the information his countrymen had gained in Babylonia during the exile, and joined therewith the traditions of his own land. It is possible that we have here an old Babylonian tradition, but it is more probable that the writer has attempted only his own statement of the relationship of the peoples known to him, under the form of a genealogy. His arrangement is geographical, and yet not purely that. He separates the Canaanites from the Hebrews (of the same tongue with them), and puts them with the Egyptians; he omits the Babylonians, who in his time spoke Semitic, from the list of the sons of Shem, and connects Babylon with the Cushite, Nimrod. In this last case modern discoveries have shown that he had a basis for his statement. Geographically,

3

his enumeration of the sons of Shem begins at the Persian
Gulf, east of the Tigris (Elam), passes up the Tigris to As-
syria (leaving out Babylonia), embraces the Aramean-Meso-
potamian region, and perhaps the country west of it, and
thence, entering the Arabian desert and peninsula at some
point not given, passes down to the Strait of Bab-el-Mandeb,
where it ceases (without mention of African Semites). From
this statement the writer's general notion is tolerably plain.
He regards the children of Shem (Gen. x. 22) as having orig-
inally occupied the country extending from the Persian Gulf,
east of the Tigris, through the upper part of the Mesopota-
mian region (above Babylon), up towards the sources of the
Euphrates and Tigris, and thence perhaps westward and
southwestward towards the Mediterranean (the doubtful Lud
being left undetermined [1]). Further he makes both Hebrews
and Arabs emigrants from the Mesopotamian region, or the
neighboring country to the southwest and south, and unites
them in a close relationship. This last point, which is not in
accord with known historical and linguistic facts, we may pass
by; it seems to be merely a deduction from the geographical
contiguity of these peoples. The important statement for our
purpose is the reference of the Arabs and Hebrews, by the
author of the table, to a northern locality. He believed that
these people had not always lived on the Mediterranean and
in the Southern Arabian desert; at some remote time they
had spread abroad from their Mesopotamian home. In the
case of the Hebrews this tradition is elsewhere more clearly
expressed. Abraham is said to have come from " Ur of the
Chaldees " by the way of Haran, and the correctness of this
recollection of national origin is sustained by the recent dis-
coveries in Babylonia. Whether, now, the account of the Arabs
rests on a similar recollection, or on other equally reliable
information, we have no means of deciding. It is possible
that it also is simply an inference of the writer from the geo-

---

[1] If Lud be Lydia (*cf.* Ezek. xxvii. 10), this isolation of a Semitic population
in the far west would not affect the locality of the great body of the race, ac-
cording to the table of nations. The Kir of Amos, ix. 7, is too obscure to help
us in locating the Arameans.

graphical relationship of the two peoples. , According to one tradition (Gen. xxv. 1–4) part of Arabia was even occupied by descendants of Abraham. Such a sentiment of consanguinity may have led our author to assign to Arabs and Hebrews a common ancestor and a common early home, and we can thence get no trustworthy historical datum ; just as it is felt by most scholars to be difficult to separate Canaanites from the Hebrews ethnologically, against the apparent evidence of language, and in reliance on the genealogies of the table.

Nothing definite, then, is obtainable for our purposes from this table. The author thinks, indeed, of a specific locality for the original abode of the children of Shem ; but the date and the sources of his statement are uncertain. If, as seems possible, the document was produced or completed during or after the Babylonian exile, we cannot tell how much of it rests on ancient tradition, and how much is a simple genealogical statement of the ideas of the time, which were largely determined by geographical conditions ; and if his distribution of the sons of Shem be correct, we still learn nothing of the home of Shem himself. His descendants, it is said, stretched over a considerable area of country, but we are not informed from what point the primitive undivided people began its career. We gain nothing by attempting to combine the genealogies of the tenth chapter with the account of the dispersion in the eleventh. These two narratives belong to different points of view, and do not form complementary parts of the same tradition, though an editor has undertaken to bring them into connection with each other by inserting the remark (Gen. x. 25) that the division of the earth occurred under Peleg ('division'), the grandson of Shem's grandson. But, as we have seen, supposing the whole human race to have dwelt in Shinar, or Babylonia, up to the dispersion, it does not thence appear what the subsequent movements of the descendants of Shem were. Or, finally, if we may hold it to be very probable that the Semitic author of the narrative meant it to be understood that his own people stayed in Shinar, while the rest of the world sought other abodes, this

statement cannot be accepted on his authority as historical, for the reason that it may be merely a Babylonian (and originally non-Semitic) local tradition, which naturally located the beginnings of the new humanity on its own soil.

A survey of the earliest Semitic documents thus shows merely that the North Semitic tradition (of which a considerable part appears to come from a non-Semitic source) located the race along the courses of the Tigris and Euphrates, without furnishing any definite information as to the point at which it originated. It does not point with any clearness to Shinar, or to Armenia, or to the Arabian desert as the earliest home of the Semites, and the theories of origin which, resting on this tradition, have fixed on these points, must be regarded as so far untenable.

2. The second source from which it has been sought to bring data for the solution of our question is the grammar of the Semitic languages. It has been supposed that it was only necessary to determine which dialect shows in the main the fullest and most original forms, out of which those of the other dialects must have come. This language, it is properly said, would stand nearest to the mother-tongue, and thence it has been inferred that the people speaking it must occupy the original seat of the race. This, if it were sound reasoning, would furnish a very simple means of reaching the answer to our question, for it cannot be a difficult problem to determine the comparative antiquity and originality of the grammatical forms of the various Semitic dialects. The materials for such inquiry are at hand, and linguistic principles are definitely enough known and acknowledged to lead scholars, after a while, to practical agreement on this point. But it is easy to show that the above mentioned reasoning is not sound. It is not necessarily true that the people whose language is nearest to the mother-tongue, occupy the original seat of the race. It is not residence in the old home that determines the preservation of old grammatical forms, but the absence of the causes of phonetic change. Apart from climatic influences (which in the case of the closely grouped Semites were not diverse enough to produce marked differences of degradation in the

phonetic systems of the different peoples), and the wear and tear of ordinary speech, the chief among these causes is inter-course with other nations. Supposing the language to have attained stability of form and vocabulary (as was already the case with the Semitic before it broke up into dialects), an isola-ted, non-commercial, socially undeveloped nation will be com-paratively free from linguistic change, while a people who are brought into frequent and close contact with others, and whom an active social life leads to devise convenient modes of speech, will more likely depart further from the original forms of the language. Hence a literary language of such developed form is more commonly exposed to change than one that is not written; for written literature supposes social activity, and occasions of modification of forms.

Now among the Semitic nations it was the northern division that was most subjected to the conditions of phonetic change. The Babylonians, the Assyrians, the Arameans, the Pheni-cians, the Canaanites, and the Hebrews at an early period es-tablished kingdoms, mingled with neighboring nations, and would naturally feel the effect of this friction. On the other hand, in the southern division, it was only the Sabeans, on the south coast of Arabia, who reached considerable social devel-opment. The Arabians, comparatively isolated in their desert home, roaming about as tribes and clans, but forming few settled communities, founding few cities, and rarely approach-ing to anything like a strong government, were thus compar-atively free from causes of linguistic change. We should expect, therefore, that their language would remain nearest to the mother-tongue, and that greater deviations from this latter would be found in the northern division, as is actually the case. On these variations of phonetic degradation we cannot found an argument for the primitive abode of the race; they depend on other conditions than nearness to the original home. The tongue that most nearly represents the primitive speech does not for that reason stand geographically nearer to the most ancient centre, and that which is grammatically most remote is not necessarily at the farthest local remove from it.

We are therefore obliged to reject the theory which makes
Arabia the cradle of the Semitic race on the ground that the
precedence in fulness and antiquity of form is to be given to the
Arabic among the Semitic dialects. The argument for Arabia
has been fully presented by Schrader (Z.D.M.G. xxvii. 3).
His general statement of the linguistic facts may be freely
granted, — perhaps nobody will care to call in question the
formal superiority of the Arabic, — but his conclusion that the
northern and middle parts of the Arabian desert are to be re-
garded as the home of the primitive Semites by no means
follows from this premise, for the reason above given. The
isolation of the Arabians is a much more satisfactory explana-
tion of the fulness of their grammatical forms. Schrader says,
indeed, that they, no less than the other Semitic nations, came
in contact with surrounding peoples, — Indo-Europeans, Tatars,
and Cushites, — but of this there is no proof; that is, there is no
proof of any such serious intercourse with these peoples as
would be likely to work linguistic change. At a late period,
about the beginning of our era, Arabian kingdoms were estab-
lished on the northern and eastern borders of the desert ; but
these had little or no effect on the great body of the desert-
people, whose language it is that we call Arabic. Even after
the rise of Islam, when the cities of Bosra and Cufa became the
seats of Koran-study, it was the roving Bedawin who estab-
lished the usage of the language, and who then, as now, looked
on the dialects of cities as degenerate and corrupt ; then as
now, it was the oral tradition of ancient use that gave law to
the speech. Everything goes to show that this social isola-
tion of the Arabs has continued from time immemorial.
Schrader assumes that they descended from Armenia, at the
time of the breaking up of the mother-race. If this were
true, we might suppose that they moved slowly along south-
ward among the nations of that region, and that their language
was affected by this contact, though this would be by no means
certain. But it is not proved that they came from Armenia.
We have seen that the traditions do not establish this, and it
will presently appear that other supposed evidence in this di-
rection is equally inconclusive. Schrader urges another his-

torical argument to which we cannot attach much importance, namely, that there have always in historical times been emigrations from the Arabian peninsula, but never immigrations to it from other lands ; whence he thinks it more probable that the other Semites originally went forth from the desert than that the Arabians entered it from some other point.   But these emigrations in historical times (before Islam) have been comparatively few and small, and they were the result of conditions — mostly tribal wars — which may not have existed in the early period.   It is quite conceivable that in the time of migrations a people should have entered the desert and established themselves there, that other peoples should not have been tempted to follow their example, and that they themselves should long afterwards send out small detachments to neighboring countries. There is nothing surprising in this, and no sufficient ground for the supposition that the desert has always given out and never received.[1]   Schrader himself, in fact, supposes that at the outset the Semites did enter Arabia from Armenia.   In illustration of the effect of social intercourse with strangers and organized life in fixed communities, we may point to the modern Arabic of Cairo, Algeria, and Syria, which exhibits a very considerable phonetic degradation, and warrants us in believing that the fortune of the Bedawin dialect would have been the same as this, if at an early stage of its history the people who spoke it had established cities and mingled with other nations.

The same treatment would apply to an argument based on the supposed formal precedence of the Babylonian-Assyrian. If this could be proved, it would not necessarily follow thence that the primitive Semites lived in Babylonia, but only that for reasons, which might or might not be known, the Babylonian-Assyrians had not been so much exposed as their sister nations to conditions of phonetic change.   A claim for the Aramean territory has been founded on considerations of an opposite character.   Their dialect exhibits not less but more degradation of form than any of the others, and has

---

[1] We may compare with the northward movement of the Arabian tribes the emigration of the Gauls to Galatia in historical times.

therefore been supposed to have run through a longer his-
tory of change, and to go back to a higher antiquity, — hence
to represent most exactly the primitive language and to point
to its locality. This argument rests on the same fallacy that
has been mentioned above; and, besides, assumes an impossible
difference of age in the different dialects. They, of course, all
start from the same historical beginning, the mother-tongue,
and the only possible difference of age is one of grammatical
and literary development, which has nothing to do with the
original seat of the race. In regard to the territory of the
Arameans, it seems probable that they were at first settled
in the upper Mesopotamian region, and only later pressed
westward and southwestward; so that, whatever weight might
be given to the position of their earliest home in the decision
of this question, it would not point to the mountains of
Armenia, or the country south of the Tigris and Euphrates,
but to what was afterwards Northern Assyria.

3. If tradition and grammar fail to furnish reliable infor-
mation on our question, it may be that better results will be
reached by an examination of the Semitic vocabulary. The
attempts of Kuhn, Pictet, and others to reconstruct the life
of the primitive Indo-European people, by the determination
of the words common to all the dialects, are well known. The
common vocabulary, it is said, will exhibit the plants, animals,
and minerals in use among the people and the physical feat-
ures of their land, which latter may thus be identified. The
general propriety of such inquiries cannot be questioned, but,
as the scholars who have engaged in these investigations have
taken pains to point out, there is need of great caution in con-
ducting them. This is especially to be borne in mind when
the object is to fix the geographical seat of a primitive, pre-
historic people. Here are various special causes of error to
be guarded against. It is easy to prove that there was a
primitive mother-people; the reconstruction of the grammar
of this people is comparatively easy, may indeed be supposed to
result naturally from the careful handling of known grammat-
ical facts; and it may be assumed that they dwelt in some defi-
nite locality. But when we pass from grammar to vocabulary,

the question of original form is complicated by the greater
liability of stems to change. Especially when it is proposed
to determine, from the words that have come down to us, the
locus of a people who had ceased to exist long before the era
of the earliest historical remains in our possession, it is obvi-
ous that the general possibility of great verbal changes, in so
vast a period, must suggest caution in making inferences from
the vocabulary. In all such inquiries the following points
must be kept in mind : (*a.*) It is the agreements rather than
the differences of the dialects that should be considered.
One nation may in the course of ages drop a word which it
once possessed in common with the sister nations, and re-
place it with another. Change of surroundings or habits
may produce such change of vocabulary, or the new word
may be borrowed from a foreign people. Thus the Baby-
lonian-Assyrian and the Hebrew borrowed from the Sume-
rian-Akkadian the term *ir* for "city;" and in Hebrew the
other words for this conception almost completely died out,
leaving, however, sufficient trace to show that they were once
in use. Arguments based on such a difference would, of
course, be unsound. It is possible that changes of this sort
may be of such a nature as to point to some physical feature
in the earlier home of the nation; but, unless this is proved,
it is unsafe to infer the absence from the original home of
some geographical feature because the latter is expressed by
different words in the different dialects. In this connection
it is to be noted that the literatures of the Arameans (with
the exception of the brief Aramaic passages of the Old Tes-
tament), the Arabs, the Sabeans, and the Ethiopians date from
points some time after the beginning of our era. (*b.*) When
a given object is expressed by the same word in all the dia-
lects, it is possible (as Guidi and others have pointed out), if
the object is movable, that it may be not a natural product of
the original home of the race, but an importation from abroad.
This is true of metals, and to some extent of plants and do-
mestic animals. If the primitive people had attained a tolera-
bly high degree of civilization, it would be easy and natural
for them to avail themselves of the productions of their neigh-

bors, as we know the Bedawin did at a period when they had advanced little, if at all, beyond what we may suppose to have been the social condition of the primitive Semites. Or to take an example from a neighboring people, — the horse was introduced into Egypt about the time of the twelfth dynasty, and if there had afterwards arisen several Egyptian dialects, all of which used the same word for horse, an argument, based on this identity, to show that the primitive Egyptians inhabited a country of which the horse was a native, would lead to an incorrect result. (*c.*) Where two dialects agree in a word, it is possible that one has borrowed it from the other, a fact that will generally be apparent from the history of the use of the word in the borrowing language. Of this there are not a few examples in the Semitic tongues. It is even conceivable that one dialect, having borrowed a word from a foreign tongue, may then transmit it to its sister dialects, so that what appears on the surface to be a general Semitic term may in reality point to a region never inhabited by Semites.

In the Semitic field the comparison of words is facilitated by the permanence of stems, which is a characteristic of this family. It shows no such divergence of forms as we find in the Indo-European languages. If an original word has been preserved in any dialect, there will be no difficulty in recognizing it if it is found in the literature. The phonetic differences between the various Semitic tongues are so few and simple that there can never be serious difficulty in determining the forms in any one dialect which correspond to those in others. It is the use to which resemblances and differences are put that calls for the exercise of caution in the inquiry of which we are speaking. In another direction, also, care is needed. The territory occupied by the Semites in historical times is so small in extent that there seems to be little room for choice in selecting the site of their primeval home; there is apt to be an unconscious prejudgment of the question based on general considerations, or on some one set of facts. All the more must we guard against such assumptions, and decline to accept any theory that does not emerge naturally

from all the known facts, and satisfactorily explain the phe-
nomena. It is possible that the Semites, or any other great
race, changed their domicile once or oftener, and that their
language may thence bear the impress of several different lo-
calities ; or it is conceivable that, while the people have dwelt
in different places, it is some one of these that has most
strongly affected the language, and this place, though the
testimony of the language might lead us to take it as the
primitive home, might not be the latest or the earliest abode
of the united race. All that can be said for any locality, to
which the common vocabulary may point, is that it in some
way affected the language, and that its influence probably
came from the residence of the people in it at some time ;
all this, with the understanding that the facts may be so clear
as to point definitely to some one place that may properly be
called the home of the primitive people, but they must in
that case be able to stand the most careful scrutiny.

As an illustration of this line of investigation we may take
the essay of Guidi,[1] the object of which is to show that the
cradle of the Semitic race is to be sought in Babylonia. He
finds that all the Semitic tongues have the same expression
for the following things : *river, sea, canal, marsh, winter,
summer, heaven, bitumen, pitch, brick, gold, copper, poplar,
tamarisk , cane, palm, pomegranate, wheat, barley, vine, camel,
ass, dog, swine, lion, leopard, hyena, wolf, fox, jackall, porcu-
pine, stag, gazelle, hare, wild ass, bow, arrow, spear, ox, heifer,
sheep, lamb, goat.* On the other hand, the names of the follow-
ing objects are different in the different dialects : *mountain,
hill, brook, desert, silver, iron, lead, elm, oak, pine, beech, mule,
fish, fig, olive, wine.* These agreements and differences, he
argues, point clearly to Babylonia as the land where the
common Semitic vocabulary was formed. For this country
bordered on the *sea* (Persian Gulf), was traversed by great
rivers, abounded in *marshes* and *bitumen*, used *brick* commonly

---

[1] *Della sede primitiva dei popoli semitici. Memoria del socio Ignazio Guidi.
Roma,* 1879. *Reale Accademia dei Lincei.* This learned and carefully written
paper is valuable, apart from its immediate object, for the light it throws on the
life and customs of the Arabs.

for building and writing purposes, produced *wheat* and *barley*, was especially noted for its *palm* trees, is shown by the ruins and monuments to have possessed *gold* and *copper* in plenty, and nourished the animals named above; while it is equally characterized by the absence of *mountain*, *brook*, and *desert*, there are no traces of *silver* and few of *iron* and *lead* in the early times, and the *elm*, *oak*, *pine*, and *beech* are not found in it. Herodotus especially mentions that it lacked the *fig*, the *olive*, and the *vine*, and the *mule* was an importation from the west. This is a striking array of facts, and yet a close examination may show that these words do not fix the home of the Semites beyond all doubt.

In the first place, in accordance with the remark made above, the absent words, those which are not common to all the dialects, must be excluded from the argument. The difficulty in reasoning from such absences is illustrated by the case of the *fish*, for which object the Semitic tongues have not a common word; it is not only hard to suppose that a people who lived, as Guidi supposes, by the Euphrates, the Tigris, and the Persian Gulf were ignorant of the fish, but it is also not easy to see in what region they could have failed to adopt a common expression for a thing so generally known.[1] As in this case the absence of a common term for *fish* cannot be regarded as deciding the question of locality against Babylonia, so the absence of a common term for *desert* cannot exclude Arabia from the list of possible Semitic homes. That the Semitic dialects do not agree in their expressions for *mountain* does not warrant us in concluding that the united people never inhabited a mountainous region. One or another of the dialects may have dropped the original word, and provided itself with an expression better suited to its later abode. In respect to other of these wanting terms other considerations come in. Thus the absence of generally distributed words for *silver*, *iron*, *lead*, and *tin* seems to Guidi to point to a land which did not produce these metals; but their non-occurrence may just as well be explained by the

[1] It is assumed that the Arabic *nun* is not native, but a loan-word from the Aramaic.

conditions of early civilized or half-civilized life, in which, as is well known, these metals, on account of the greater skill required to use them and for other reasons, play an insignificant rôle. As for the *mule*, if it be true that it was first produced in Western Asia Minor, the lack of a name for it would of course, so far as it could be used as an argument, favor the claim of any other part of Asia to be the primitive home of the Semites. Nor does a common word for *horse* occur, but this can prove nothing for our object. It is probable that the *horse* was not native to any of the lands inhabited by Semites in historical times, nor to Western Asia in general ; and even if the people had once dwelt in the supposed native land of this animal, the steppes of Central Asia, they may in their migration have failed to bring it with them, and have dropped the name for it that they had at first. It will be noticed that our author, while denying that the primitive Semites were acquainted with *wine*, claims that they had the *vine*, inasmuch as this last is expressed by the same word in Arabic, Hebrew, and Aramaic. The presence of the *vine* is unfavorable to the claim he makes for Babylonia, since Herodotus, on whose statement he seems to place much reliance, says expressly that the *vine* was not found in that land. But at this point we have to note only that the absence of *wine* is one of the things that may be referred to an early stage of social development, or to such a stage among certain peoples who had intoxicating drinks from cereals and other sources, but not from the grape. Finally, as is brought out by Guidi himself, the evidence is as great for the absence of the *fig* and the *olive* from Arabia in early times as for their absence from Babylonia. So that this array of negative evidence proves nothing. In addition to the general vice of this sort of argument, special considerations in the case of almost every one of the words cited forbid us to draw the geographical inference with which we are dealing.

We come, then, to the words common to all the dialects. Of these it has already been remarked that the *vine* certainly does not tell particularly for Babylonia, seeing that the testimony of Herodotus is that in his day it did not exist there at

all; its wide distribution (from the Caspian Sea southwest-
ward to Egypt) makes it, in fact, difficult to cite it in behalf
of any special district as the Semitic home.   Our author's
point, however, is that though the plant was known, the
culture of the grape for its *wine* was not carried on by the
primitive Semites.   This argument has been noticed above;
and the additional observation may be made that, if some of
the people after their dispersion settled in districts unfavorable
to vine-culture (as Babylonia, for example), this itself might
be a reason for the disappearance from this tribe's dialect
of terms for this culture which they may have once pos-
sessed.   Of the wild animals given in the list, it is suffi-
cient to remark, as Guidi does, that they are not peculiar to
or characteristic of Babylonia, and therefore cannot come
particularly into consideration here; and the same thing must
be said of the domestic animals — the *ox*, the *sheep*, the *goat*,
as well as the *camel*, the *ass*, the *dog*, and the *swine*.   *Wheat*
and *barley* also are found in many other regions than the
Tigris-Euphrates valley.   The conclusion that our author
here presses is that the primitive Semites were a pastoral
people and cultivated cereals.   Not only are the names of the
domestic animals and the grains common to all the dialects,
but also the words describing the operations of industry; not,
however, those which signify *bread*, *leaven*, and *cooking*.   Pass-
ing over this last negative statement as inconclusive, let us
suppose that the pastoral character of the primitive Semites
may be fairly inferred from the other facts, — that it is not
likely that the language would have possessed words for
ploughing and *sowing* (and there is no trace here of borrowing
by one dialect from another) unless the people had engaged
in these employments.   Let it be admitted that at one time
they inhabited a land that permitted such occupations; but
the territory that fulfilled this condition, stretching at least
from the Caspian Sea to the strait of Bab-el-Mandeb, was
very extensive, and for Babylonia all that can be said in this
connection is that it is not excluded.   The occurrence of
names of weapons, such as *bow*, *arrow*, *spear*, has, of course,
no special bearing on our question.   As to the trees which

have common names in Semitic, Guidi himself refers to the difficulty of insisting on them, " because the migrations of trees are almost as great and complicated as those of peoples ;" and we need not stop to ask the distribution of the *poplar*, the *tamarisk*, the *styrax*, and the *pomegranate*. The *palm*, for which Babylonia was famous, was found from Persia to Egypt and beyond, and a noteworthy illustration of its geographical variations is found in Palestine, where it was once abundant, but is now very rare. It has already been remarked that the use of *gold* and *copper*, rather than *iron*, *silver*, and *lead*, might be simply a feature of an early civilization ; and it is besides obvious that metals might be known to a people though they were not produced in its territory. But the argument from absence of names cannot be pressed ; because the dialects have not the same word for *silver*, it is not certain that the primitive tongue did not have such a word. Disregarding the words for *winter*, *summer*, and *heaven*, which are too indistinct to point to a special locality, there remain those for *river*, *canal*, *sea*, *bitumen*, *brick*, which, our author thinks, go far to identify the primitive Semitic land with Babylonia. Of these it is doubtful whether the dialects show a common expression for *bitumen ;* the Arabic *humar* is ' Jew's pitch ' and so *kufr*, and both these words appear to be taken from the Jews. The soil of Babylonia is especially favorable to brick-making, but the process was carried on very early in Egypt, and apparently in Arabia, and such an operation may have been learned and named by the early Semites even though they lived in a land not favorable to it. *Marshes* were found in Arabia as well as in Babylonia. Finally, it is impossible to lay great stress on the existence of common terms for *river* and *sea*. In whatever region of Western Asia the primitive Semites may have dwelt, they might easily, and would naturally, have had words for such prominent and well known objects. Near the Caspian Sea, or in Armenia, or in the depths of the desert, they would have heard of and seen some stream large enough to be called a *river*, and they could not have gone far in any direction without finding a *sea*. There is, besides, room for doubt whether the Arabic *yam* is

native or a loan-word from the Aramaic ; and *canals* abounded
in Oman, as in Egypt and Babylonia.

It appears, then, that no one of the common words cited
by our author binds us to any one locality for the primitive
Semitic dwelling-place. But may they not, all taken together,
point to some one land which alone fulfils all the conditions ?
From our examination it may be inferred that the Semitic
people was acquainted with agriculture, the common domestic
animals, certain wild animals, gold and copper, the palm and
other trees, *sea, river, canal,* and *marsh.* To these objects we
may add *fountain* or *spring*, the expression for which is com-
mon to the northern and southern divisions of the language.
If we recollect that an object, to be known to a people, need
not exist in their land, but may have been heard of from emi-
grants, or seen in forays, and bear in mind the wide distribu-
tion of most of the things discussed above, it will be difficult
to fix on any narrow locality as one that alone meets the
requirements of the case. Dwelling in Babylonia the people
might have known all that this Semitic vocabulary demands of
them ; though, for example, there may have been no springs
in southern Babylonia, it would have been quite possible for
them to know the spring from other lands and to give it a
name ; but in southeastern Arabia also they might easily
have been acquainted with all these things, and probably in
Armenia and the country south and southwest of the Caspian
Sea. Considering the meagreness of the existing vocabularies
of some of the Semitic tongues, and the late period at which
others were committed to writing, it seems rash to fix precisely
the circumstances under which the primitive vocabulary was
formed, and especially to select a restricted territory, and
find in it all the materials for the people's stock of words.

The difficulties in the way of Guidi's theory hold equally of
one that should make Arabia, or any other land, the seat of
the Semites. The data hitherto discovered or brought for-
ward are not sufficient to solve the question. Much more is
this true of an attempt to fix the home of the ancestors of
the combined Semitic and Indo-European races, supposing
that the linguistic facts made it probable that these two came

from a common parent-race. Here the elements of uncer-
tainty, by reason of the greater remoteness in time and the
greater possibilities of place, would be more numerous than in
the question we have been discussing. The evidence, both
of language and of tradition, would be feebler and less trust-
worthy; and we can hardly suppose that Guidi places much
reliance on the attempt he makes to trace the progress of the
Semites from the Aryo-Semitic home (southwest of the Cas-
pian Sea, where the ark is supposed to have rested) to Baby-
lonia by giving geographical and other interpretations to the
names of Shem's descendants found in the second half of the
eleventh chapter of Genesis.

4. The fourth direction in which data for the determination
of our question have been sought, is the early history of the
Semites as indicated by the results of recent researches in the
Babylonian-Assyrian literature. According to these the Se-
mites were preceded in the occupation of lower Mesopotamia
by a civilized non-Semitic people, from whom they borrowed
customs and laws, mythology, the art of writing, and their
literature. If now it was the whole Semitic race that thus
came under the influence of the Sumerian-Akkadians, we
should expect to find its traces among all the nations of the
race. But this is not the case; it is only in the northern divis-
ion and among the Sabeans of South Arabia that there are
signs of ancient contact with the old Chaldeans. It may be
that the southern Arabs were affected by this people through
their commercial relations by the way of the Persian Gulf.
Of the others, the Babylonians and Assyrians naturally show
the Akkadian influence most distinctly; next to them, so far
as our present knowledge goes, come the Hebrews; and then
the Phenicians and other Canaanites, and then the Arameans.
These facts accord best with the supposition that only the
northern Semites inhabited Babylonia, and that the various
subdivisions departed from this point at different times; first,
the Arameans, then the Canaanites and Phenicians, last of
all the Hebrews. Possibly also it might be supposed that the
Sabeans once dwelt there. More exactly, we should only have
to suppose that all the northern Semites were once under

4

Sumerian-Akkadian influence. Among the Arabs proper, the Bedawin, there is no trace of this. Their customs, mythology, poetry, are altogether different from those of the northern division. Allowance must be made, it is true, for the recent origin of Arabian literature; some of their old tradition and mythology may have perished before the art of writing was introduced. It may be supposed that the Arabs separated from the main branch soon after they entered the Tigris-Euphrates valley; but whether the separation took place immediately before or immediately after this entrance, the Arabic language could not be said to have been formed in Babylonia.

The established facts may be held to be these: the Babylonian-Assyrians and the Hebrews certainly, and the other north Semites probably, dwelt for a considerable time in and near the lower Euphrates valley, along with and under the influence of the Sumerian-Akkadians; at a very early period occurred the separation between the northern and southern divisions; the southern division, with the exception of the Sabeans, gives no evidence of having known the Akkadian civilization; the probability is that the Semites entered Babylonia on the southern rather than the northern side, — that is, either by the Persian Gulf or by crossing the Tigris or Euphrates. These facts suggest conjectures, but they do not at present lead to any definite results; it can only be affirmed positively that some of the northern Semites dwelt at an early period in or near Lower Mesopotamia.

This is, I think, a fair statement of the facts bearing on the solution of our question. If it is only a negative conclusion to which we are led, that must be ascribed to the insufficient character of the data. It is not surprising that we should be unable to fix definitely so remote a period as that at which the Semites dwelt together and spoke one tongue; but it does not follow that it will never be fixed, or that researches in this direction are useless. If they are conducted with scientific precision and sobriety, though they may not solve the problem proposed, they will always yield valuable results. To avoid premature generalizations and precipitate judgments,

however, preliminary studies are necessary. While the deci-pherment of Assyrian inscriptions is slowly unveiling the early history of the Tigris-Euphrates valley, and the science of ethnology is throwing its light on the beginnings of races and civilizations, Semitic comparative grammar and lexicog-raphy must contribute its part by an exacter working up of the material of the various dialects ; and to make comparisons reliable these dialects must first be severally studied. Up to this time the Assyrian, so important for the history of the Semitic tongue, remains without a satisfactory account of its dictionary and grammar ; and the hardly less important Sabean is represented by so sparse materials that we have no very distinct knowledge of its character. There is room for much good work even in the vocabularies of languages that have been so long and so closely studied as Hebrew and Arabic. Every careful investigation of a particular point is a contri-bution to general grammar, and to such reconstruction of ancient history as general grammar may be able to make. The essays of Schrader and Guidi above cited contain discus-sions that have a grammatical or historical value independent of their immediate object, and in respect to the question of the home of the Semites, have at least shown the insufficiency of certain data, and the necessity of wider researches. But, while it is true that in searching for something unattainable by the resources at our command we are often led to valuable discoveries, it is still always better to know the conditions and preliminaries of our search, and to do the preparatory work before setting out, — the preparatory work in this case being minute study and comparison of the several Semitic dialects. When the proper facts shall have been gathered, the results, in the departments of grammar and history, will show them-selves with unmistakable clearness.

III. — *The New Spellings of the Philological Society of London.*

By F. A. MARCH,

PROFESSOR IN LAFAYETTE COLLEGE.

SYNOPSIS.

History of the changes, p. 52.	gh- : g, 66.	p *dropt*, 67.
Works of reference, 53.	-gh *dropt*, 67.	ph : f, 68.
General principles, 53–58.	-gh : h, 66.	: v, 67.
Details, 58–68.	-gh : f, 68.	-rr : r, 64.
b *dropt*, 65.	h *dropt*, 64, 67.	-re : er, 59.
-bb : b, 64.	l *dropt*, 61.	s *dropt*, 67.
c : s, 66.	ie : ee, 61.	: z, 67.
ch : c, 66.	: i, 61.	sc- : s, 67.
: k, 66.	-ine : in, 59.	· c, 68.
dd : d, 64.	-ise : is, 59.	: sk, 68.
d : t, 66.	-ite : it, 59.	-se : s, 59.
-e *dropt*, 58.	-ive : iv, 59.	-some : sum, 59.
ea : e, 60.	l *dropt*, 67.	-tt : t, 64.
: a, 60.	-ll : l, 64.	tch : ch, 68.
eau : eu, 60.	-le : l, 59.	u *dropt*, 63.
ei : i, 60.	-nn : n, 64.	ue *dropt*, 63.
-en : n, 60.	o : oo, 62.	: u, 64.
eo : e, 61.	: u, 62.	-ve : v, 58.
: o, 61.	: i, 62.	w *dropt*, 68.
-ff : f, 64.	oe : oo, 62.	y : i, 64.
g *dropt*, 66.	ou : u, 63.	-zz : z, 64.
-gg : g, 64.	: o, 63.	ze : z, 58.

WHEN the Philological Society of London undertook last year to prepare a list of words in corected spelling for imediate use, it was confidently expected that the Comittee of the American Philological Association to which such matters ar referd would be able cordialy to endorse the hole English list. The leaders in the movement wer known to be agreed as to the ultimate spelling at which reformers should aim. It was supozed that the list would contain only such words as coud be drawn nearer to this ultimate spelling without obscuring their etymology or pronunciation to the general reader.

It proved, however, that members who wer agreed as to what it would be desirabl to do, wer of very different opinions as to what can be done, and what it is best to try to do.

Perhaps the way in which the list was prepared was not a good one. Changes wer propozed in open meeting, voted on one by one, and adopted by a majority vote. Sum members probably had no system in mind, but voted on each corection as it happend to strike them. Perhaps the members prezent at the different meetings wer not the same; the discussions lasted from July 9, 1880 to January 28, 1881, — six meetings. The rezult is that the final list is probably not such as any member would hav prepared, and sum of the members hav taken ocazion to say so to the public. The Prezident, Mr. A. J. Ellis, is one of theze. He believs in forming and urging a complete fonetic system for use side by side with the old spelling at first. He devotes the main part of his prezidential adress to an atack on partial reform. This adress is publisht, of course. Mr. Ellis has also publisht his disent in the English periodicals.

Dezirabl as it would be to giv to the report as a hole the prestige which would be gaind from the unanimous endorsment of all the filologists interested in the reform, that is now impossibl. The Comittee of the American Philological Association has therefore felt quite free to adopt for its own report only such of the recomendations of the English Society as it can cordialy endorse, and it has not thought it wurth while to discuss the details.

Perhaps it may interest this Association, however, to hav the English pamflet pretty fully set forth with comments in a separate paper.

The pamflet is spelt acording to the recomendations of the Society, and the extracts from it in this paper follow the same spelling; but the remarks of the writer of the paper ar spelt acording to the recomendations of the American Comittee.

It begins with a mention of works of reference, a half a duzen English books and pamflets by Sweet, George Withers, Max Müller, J. H. Gladstone, and others. Then there ar ten pages devoted to "general principles."

1. The objects of the Spelling Reform. Theze ar stated to be:

a. To facilitate the acquizition of English spelling; thereby

b. enabling children and adults to lern reading who ar at
   prezent unable to do so ;

c. shortening the time spent in lerning to read ;

d. facilitating the acquizition of the ordinary spelling ;

e. efecting a saving of national expenditure ; and

f. spreding the knowledg of English among forein nations.

g. To remoov etymologicaly misleading spellings.

2. A history of Spelling Reform within the Philological
Society.

3. A history of English spelling, the two most important
facts of which ar :

a. that it has always been in intention fonetic, except
where corupted by French spellings or their analogies ;

b. that the main cauz of the prezent divergence between
pronunciation and spelling is the retention of the spelling,
while the pronunciation has changed.

4. The cauzes of the difficulty of English spelling. It is
unfonetic :

a. in keeping silent letters ;

b. in keeping the same symbol for sounds that hav di-
   verged, as in *had, hard, was, hate, water ;*

c. in keeping different symbols for sounds that hav con-
   verged, as in *name, fail, weight, great.*

In the last category we must notice especialy the retention
of purely arbitrary distinctions, as in *now, thou, city, cities, dry,
dryness, drily.*

5. The remedy is to make the language fonetic. The
practical test of a fonetic orthografy is that it is lernt with-
out spelling lessons beyond the acquizition of the sounds of
the elementary symbols. But there may be partial remedies
which do not bear this test very wel. Thus by writing *name,
fale, wate, grate,* we get rid of the difficulty cauzd by the
prezent divergence in the words *name, fail, weight, great,* tho
the new spelling does not bear the practical test.

6. The direction of reform. A partial reform must avoid
comitting itself to changes of disputed direction, as far as
possibl.

"The main divergence is between thoze who adopt the

original (Roman) fonetic values of the vowel-letters, and thoze
who retain their prezent English ones.

Any alteration of the vowels of *see* or *time* would at onse
alienate thoze who advocate the English values, while such a
change as that of *machine* into *macheen* would alienate thoze
who advocate the Roman values.

The only undisputed associations ar thoze between the
italic letters in the following words and the sounds they hav
in thoze words :

*b*e, *d*ay, *e*nd, *f*ell, *g*et, *h*ill (except where *h* is a diacritic, as
in *th*), *i*t, *k*ill, *l*et, *m*en, *n*o, *o*n, *oi*l, *p*en, *r*ed, *s*o, *t*en, *v*ine, *w*ell,
*z*eal."

It seems from theze statements of the pamflet that there
is pretty good agreement on the signs of the elementary
vowels, *i. e.* on the fundamental sounds which the types ar
to hav. The divergence realy is between thoze who would
giv the types the same sounds in long vowels and difthongs
which they hav in short vowels, and thoze who giv them dif-
ferent sounds, thereby refusing to make the long vowels and
difthongs fonetic.

The rule to avoid disputed changes is good ; it should
hav been strictly aplied. There is no necessity that the cor-
ected words should be numerous ; the great point is that they
should be free from objection. But in fact sum of the cor-
ections ar open to ernest objection. Such ar thoze in which
an extended use is made of *ee* for the sound produced by
lengthening the *i* of *pick* as in *pique*. This is a central posi-
tion of divergence. If *ee* is establisht for this sound, the long
vowels and difthongs into which *e* or *i* enters ar all set at
variance. Such also ar the corections in which *oo* for long
u, as in *rude*, *ruin*, is extended. It is also wurth mentioning,
perhaps, that the list of undisputed letters is not strictly cor-
ect. The use of the type *o*, for example, is undisputed only
when the view is confined to reformers who insist on having
no new letters or diacritical marks. When theze ar ad-
mitted, it is strongly urged that the old *o* should be used for
its sound in *potato*, and that the new type or markt letter
should be put for *o* in *not*, according to the use of the Ameri-

can Spelling Reform Association, and of Mr. Sweet in his Anglo-Saxon books, and the general alfabet of his "Handbook of Phonetics." The *u*'s of *but, bush*, etc., and the *o*'s of *not, note*, etc., ar on like footing.

7. The obstacls to reform ar the difficulty and inconvenience of change ; but large changes hav been made and ar now going on. Much prejudice, however, is excited by unfamiliar forms of words, and this is a reazon for avoiding changes which ocur very often, such as *ov* for *of*, *z* for *s* in inflections, and the like. Less prejudice is excited by omissions than alterations of letters.

8. Etymology and history. Etymological spelling, in its conventional sense, consists simply in retaining the fonetic spellings of an erlier period after they hav becum unfonetic. Such a spelling destroys the materials on which etymological investigations ar based — namely, a continuous series of fonetic spellings.

Altho theze views ar now accepted by all filologists, an appeal to traditional spellings, in introducing a partial reform, has two uses : *a*. it afords a basis of agreement which may be otherwize wanting, as in the expulsion of the *s* of *island* ; and *b*. afords a convenient principl of limitation. It also servs as a test of the sincerity of thoze who opoze reform solely on "etymological" grounds.

Sum' "etymological" spellings ar *incorect*, as *s* in *island ;* sum *corect*, as *k* in *knee :* classes of spellings ar often *neutral.* Silent *e*, for exampl, is neutral, since it is a mere chance whether it corresponds to an older vowel or not ; so final silent *b*. It is very difficult, therefore, to giv rules on etymological grounds which wil not hav many exceptions.

9. Distinctiv spellings, as *scent, sent, in, inn*, ar objectionabl, but the pamflet tels us that it is, of course, open to any one to retain a distinctiv spelling in any case where he may think it advizabl.

10. Proper names. Theze stand on a different footing from ordinary words in many ways, especialy names of persons, and ar left unalterd for the prezent. Such names as "Philological Society" may be considerd proper names.

11. Varieties of pronunciation should be recorded by varieties of spelling. The pamflet says "there is no more reazon for A, who pronounces a givn word in a certain way, being obliged to spel it differently becauz B pronounces it differently, than for the hole of England being obliged to write *knight* or *edage* (for *age*), becauz peple pronounced so sum hundred years ago." This seems to be a rejection of a standard in pronunciation, a rebellion agenst all orthoepic authority; but perhaps we ar to understand *aproovd* varieties of pronunciation, the varieties to be herd among educated Londoners. General advice to all speakers of English to spel as they pronounce is surely holely out of place in a pamflet whose purpose is to set forth sum such partial corections of the current spelling as ar likely to be generally unobjectionabl.

The first words of the first report to the American Philological Association on Spelling Reform ar:

" It does not seem dezirabl to atempt such sweeping changes as to leav the general speech without a standard."

So the American Spelling Reform Association begin by distinguishing their work from that of the orthoepist:

" We ar met to reform orthography, not orthoepy; we hav to do with writing, not pronunciation. There ar all sorts of English peple, and words ar pronounced in all sorts of ways. It is the work of the orthoepist to obzerv all theze different ways, and to decide which is the prevailing pronunciation of the most cultured, to decide which is the standard English pronunciation. The orthographer tels how to reprezent this pronunciation in writing. The orthoepist has many nice and difficult questions to solv. We enter into his labors. We take for granted that there is a standard pronunciation of English. We wish to see it represented by simpl and reazonabl alfabetic signs. "

In fact I am not sure that there ar any improvements of spelling set forth in the English lists which reprezent a pronunciation unknown to the dictionaries.

12. The twelfth and last preliminary discussion treats of conforming pronunciation to the prezent spelling, insted of the

spelling to the pronunciation. This is declared to be impossibl in the prezent state of things. It is hinted however that something might wel be done in this way if the fonetic principl wer in general use.

Next follow " Details." They ar givn here in the language of the pamflet. Comments ar added in brackets. The lists of ilustrations ar not givn in full.

VOWELS.

ө. Silent *e* has no etymological value, and should be omitted wherever foneticaly useless, that is, wherever it does not lengthen a preceding vowel, and in sum other cases noticed below.

In the following words it is foneticaly misleading, being added to a short vowel followd by a singl consonant, and should therefor be dropt :

Above, abuv ; *are,* ar ; *bade,* bad ; *come,* cum ; *comes,* cums ; *dove,* duv ; *give,* giv ; *given,* givn ; *gone,* gon ; *have,* hav ; *live,* liv ; *lived,* livd ; *love,* luv ; *shove,* shuv ; *some,* sum ; *somewhat,* sumwhat ; *vineyard,* vinyard ; *welcome,* welcum ; *were,* wer.

Retaind in *done, none, one* [to save the etymology].

hav thus distinguisht from *behave,* and *liv* from *alive.*

[Many other exampls in which it is foneticaly misleading for the same reazon ar givn further on, under -*ine,* -*ise,* and other endings, p. 59.]

In the following cases it is foneticaly useless.

It should be dropt after *v* and *z* preceded by a writn long vowel or a consonant, as in :

Aggrieve, agreev [agriev] ; *aggrieves,* agreevs [agrievs] ; *aggrieved,* agreevd [agrievd] ; *believe,* beleev [believ] ; *calve,* calv ; *carve,* carv ; *cleave,* cleav ; *curve,* curv ; *involve,* involv ; *leave,* leav ; *move* [stet], moov ; *nerve,* nerv ; *perceive,* perceiv ; *preserve,* prezerv ; *prove* [stet], proov ; *receive,* receiv.

[For explanation of comments in brackets see *ie* p. 61, *o* p. 62.]

Frieze, freez [friez] ; *furze,* furz ; *wheeze,* wheez ; *adze,* adz.

The general retention of *e* after *v* is a tradition of the Tudor period, when *u* was writn for *v* as wel as *u* ; if the *e* had been dropt, *valu* = *valve* would have been confuzed with *value.*

e should be dropt after writn difthongs :

Awe, aw ; *aye,* ay ; *eye,* ey ; *owe,* ow.

e coud also be dropt after a singl vowel, as in *due, hoe,* but not

in inflections such as *dus* (cp. *thus*), *hod*; it had therefor better be retaind thruout for the prezent.

e always prezervs the breth sound of preceding *s* with a consonant before the *s* (except in *cleanse*, and sometimes in *parse*), and often also when a vowel goes before; hense the *e* of such words as *dense, lease,* coud not be dropt without confuzion with *dens, leas,* where *s*=*z*, but

e should be dropt after *s* = *z* preceded by a consonant or writn long vowel, whether *z* is writn insted of the *s* or not:

Appease, apeaz; *applause,* aplauz; *cheese,* cheez; *clause,* clauz;

Also in -*dge*, as in:

Edge, edg; *edged,* edgd; *knowledge,* knowledg.

Compare *Edgware, acknowledgment.*

And in

Apse, aps; *axe,* ax; *collapse,* colaps; *collapsed,* colapst; *glimpse,* glimps; *lapse,* laps.

Mute *e* may, of course, be added or restord [*sic.* London pronunciation] wherever advizabl, as in *holely* for *holly* = *wholly.*

Inflectional and Derivativ *e.*

For -*re* write -*er*:

Centre, center; *centres,* centers; *centred,* centerd; *lustre,* luster; *metre,* meter; *mitre,* miter; *nitre,* niter; *saltpetre,* saltpeter; *sceptre,* scepter; *sepulchre,* sepulcher; *spectre,* specter; *theatre,* theater.

-*re* must be retaind after *c*, as in *acre, lucre, massacre.*

The change has alredy been made in (*gas*)*meter, barometer, tiger,* etc. [and in the other words by Webster and others].

The *e* of -*le* can be dropt

(*a*) where the *l* is preceded by two consonants, as in:

Apostle, apostl; *assemble,* asembl; *assembles,* asembls; *assembled,* asembld; *pebble,* pebl; *puzzle,* puzl; *settle,* setl; *single,* singl;

(*b*) where *l* is preceded by a singl consonant with a short vowel before it:

Couple, cupl; *double,* dubl;

(*c*) where a writn long vowel precedes, as in:

Beadle, beadl; *foible,* foibl;

(*d*) in the terminations -*able*, -*ible*, and -*icle*, as in:

Agreeable, agreeabl; *article,* articl; *articles,* articls; *possible,* possibl; *probable,* probabl; *sensible,* sensibl.

e can be dropt in -*ine*, -*ise*, -*ite*, -*ive*, -*some*, wherever the *i* or *o* is short, as in:

Discipline, disciplin; *doctrines,* doctrins; *examined,* examind; *feminine,* feminin; *practise,* practis; *promise,* promis; *treatise,* treatis; *premise,* premis; *definite,* definit; *favourite,* favorit; *infinite,* infinit; *opposite,* opposit; *motive,* motiv; *motives,* motivs; *repulsive,* repulsiv; *talkative,* talkativ; *handsome,* handsum; *quarrelsome,* quarrelsum; *tiresome,* tiresum; *wholesome,* holesum.

In other words :

Brimstone [stet], brimston; *purpose,* purpos; *therefore* [stet], therefor; *wherefore* [stet], wherefor.

Where the *e* modifies the preceding vowel (not necessarily by lengthening) in any way, it cannot be omitted : this is specialy the case after *u*, as in *volume, soluble, nature, measure.* The *e* coud be omitted after *u* in sum words, such as *figure* and *injure,* but it is simplest to leav it everywhere. *e* modifies *a* in such words as *inviolate, purchase, obstacle.* It cannot be dropt after *c* or *g*, as in *crevice, image.* [The treatment of *brimstone, therefore, figure, obstacle,* suggests a peculiar pronunciation. Phelp pronounces *brimstōne, therefŏr, figyur* or *figŭr, obstăcl.*]

e before a consonant is often dropt in *-es* and *-ed* (p. 66), of which many examples ar givn abuv.

-en often drops its *e* ; especialy in participls, as in :

Driven, drivn; *eaten,* eatn; *ridden,* ridn; *risen,* rizn; *striven,* strivn; *written,* writn.

ea has the etymological value of simpl *e,* which preceded it in Midl English, and the *a* can be omitted in :

Bread, bred; *breadth,* bredth; *breakfast,* brekfast; *breast,* brest; *breath,* breth; *cleanly,* clenly; *cleanse,* clenz; *dead,* ded; *deaf,* def; *dearth,* derth; *death,* deth; *dread,* dred; *dreamed* [?], dremt; *earl,* erl; *early,* erly; *earn,* ern; *earnest,* ernest; *earth,* erth; *endeavour,* endevor; *feather,* fether; *head,* hed; *health,* helth; *heard,* herd; *hearse,* herse; *heaven,* heven; *heavy,* hevy; *jealous,* jelous; *lead,* sb., led; *leaned* [?], lént; *learn,* lern; *leaped,* lept [?]; *leather,* lether; *leaven,* leven; *meadow,* medow; *meant,* ment; *measure,* mezure; *pearl,* perl; *peasant,* pezant; *pheasant,* fezant; *pleasant,* plezant; *pleasure,* plezure; *read,* prt., red; *ready,* redy; *realm,* relm; *rehearse,* reherse; *search,* serch; *spread,* spred; *stead,* sted; *steady,* stedy; *stealth,* stelth; *sweat,* swet; *thread,* thred; *threat,* thret; *threaten,* threten; *treachery,* trechery; *tread,* tred; *treadle,* tredl; *treasure,* trezure; *wealth,* welth; *weapon,* wepon; *weather,* wether; *yearn,* yern; *zealous,* zelous.

Where *ea* has the sound of *a,* the analogy of *hark* justifies us in omitting the *e,* thereby restoring frequent Tudor spellings :

Hearken, harken; *heart,* hart; *hearth,* harth.

eau. The older spelling of *beauty* should be restord :

Beauty, beuty.

ei. The *e* of *height* is useless :

Height [stet], hiht.

[The vowel sound in *height* is a difthong, ought not to be reprezented by *i*, is often reprezented by *ei*, as in German, and J. Pitman's fonografy. Better let it stand for the prezent.]

eo. Where *eo* has the sound of *e(e)*, the older spellings should be restord :

Jeopardy, jepardy; *leopard*, lepard; *people*, peple [hardly wurth lerning].

In *yeoman* the *e* is useless.

i. The unhistorical *i* of *parliament* should be dropt:

Parliament, parlament.

The commonest Midl English spelling is *parlement*.

ie for *ee* in English words is unhistorical, and the older spelling should be restord. The *ie* in French words is historical in French itself, but all theze words wer originaly writn with *ee* in Midl English, which *ee* ocurs frequently in Tudor English also. *sieve* had originaly *i* (Old English *sife;* cf. *sift*) which should be restord.

[This change excites much objection, and for that reazon, if no other, should not hav been made in such a list as this. The change from *ee* to *ie* is a fonetic change.

In *acheve, bileve, bref, chef* (but all the examples in Stratmann ar spelt *chief*), *feld feeld, fers feers, gref greef*, and the like, the *e* and *ee* wer used at first for the sound of *e* in *they*. The words afterwards changed their pronunciation. The spelling did not change at onse, yet it was felt to be unfonetic, and such words ar in erly manuscripts ocasionaly spelt with *i, ii, ie*, to indicate the new pronunciation ; *ie* is a penman's natural modification of *ii*, and is used for it in French and German. It has establisht itself in a considerabl number of familiar words. This was a natural fonetic movement as long as the letters *i* and *e* wer named by their old sounds. The badness of using *ee* for *ii* is now conceald sumwhat by the modern names of the letters.

It is agreed by all reformers that *i* must stand for the vowel sound in *it*, and *e* for that in *met*. Then theze letters must in fonetic spelling be named from thoze sounds, as they used to be. They ar now so named where spelling by sounds is practist. It is an important point to giv theze names general currency, and it seems likely to be one of the first steps which can be taken in the scools towards fonetic reform. By the time we might succeed in substituting *cheef* for *chief*, we shal hav *i* named as we now name *e*, and *e* as we now name *a ;* and all the abecedarians wil know that *ch-e-e-f* cannot spel *chiif*.

The only reazon for reverting to an unfonetic spelling of the Tudor period would seem to be despair of ever bringing the fonetic spelling into general use.   But it is too soon to despair of a reazonabl spelling of our long vowel sounds.   At any rate, a partial list of improved spellings is no place to exhibit such despair.   Let us wait.]

Achiev, believ, bier, brief, chief, field, fiend, fierce, friez, grief, griev, lief, liege, mien, niece, piece, pier, pierce, priest, relief, reliev, repriev, retriev, shield, shriek, siege, siv, thief, thiev, tier, tierce, wield, yield.

Mischief, mischievous, cannot take *ee.*

o.   The Tudor *oo* should be restord in :

Behove, behoov; *gamboge* [stet], gambooge; *lose,* looz; *move,* moov; *prove,* proov.

[It is better not to urge *oo* for an *u*-sound ; *pruve* is a better spelling than *proov,* and we need not yet despair of it.]

Who, whose, had better retain their singl *o* for the prezent.

In the following the Old English and Old French *u* should be restord :

Above (abuv), *affront* (afrunt), *attorney* (aturney), *borough* (buroh) [?], *colour* (culor) [?], *come, comfit, comfrey, comfort* (cumfort), *companion* (cumpanion), *company, compass, conjuror* (cunjuror), *constable, covenant, cover, covet, covey, discomfit, dove, dozen, front, govern, honey, love, money, mongrel, monk, monkey, plover, pommel, shove, shovel, some, son, sponge, stomach, thorough* (thuroh) [?], *ton, tongue* (tung), *won, wonder, worm, worry, worse, worship, worst, worth.*

Onion may be left unchanged, to avoid confuzion of pronunciation with *union.*

In many words, such as *combat, conduit,* the spelling has corupted the pronunciation ; and the pronunciation of several of the abuv words varies.

In the following words *o* is historical : *among(st), brother, does, done, dost, doth, glove, monday, monger, month, mother, none, nothing, once, one, other, smother, twopence, word, work, world.*   [The historical treatment does not show to great advantage in theze lists.   It would excite far less objection to amend theze Anglo-Saxon words than the familiar Latin forms in the list to be " restord."]

In *women* (O.E. *wifmenn*) original *i* should be restord.

oe.   The older *oo* should be restord in *canoe* and *shoe,* thus distinguisht from *doe, toe,* etc. :

[A bad change.   See remark under *o,* above.   *Shu* (schu) is an old spelling, and *canoe* can wait.]

Canoe is quite a late spelling on the analogy of *shoe;* Walker stil writes *canoa.*

ou. The Old English and Old French *u* should be restord in :

Adjourn (ajurn), *bourgeon* (burgeon), *country, couple* (cupl), *couplet, courage, cousin, double, enough* (enuf), *flourish, journal, journey, joust, nourish, rough* (ruf), *scourge, southerly, southern, through* (thru), *touch, touching, tough* (tuf), *trouble* (trubl).

The *ou* in *enough* and *tough* has no historical value, and may therefor be made fonetic ; the historical spelling would be *enoogh* and *toogh* (O.E. *genóh, tóh*).

In *-ough* the *u* is useless (O. E. *bohte, áhte*, etc.) :

Bought, boht ; *brought*, broht ; *fought*, foht ; *ought*, oht ; *sought*, soht ; *though*, tho ; *thought*, thoht ; *wrought*, wroht.

[Hardly wurth changing til the ultimate representation of the vowel sound is decided.]

In *-our* the dropping of the *u* should be carried out everywhere [as in Webster and Worcester].

u after *g* in nativ English words is unetymological, and is not more required in *guess*, etc., than in *get, gill, girdle, give*, etc. The *u* in *guarantee* and *guard* is no more required than in *regard* and *gage*.

Guarantee, garantee ; *guard*, gard ; *guardian*, gardian ; *guess*, gess ; *guest*, gest ; *guild*, gild ; *guilt*, gilt.

The *u* before *e* and *i* in forein words must be retaind to keep the *g* hard : *disguize, guerilla, guide, guile, guillotine, guinea, guize, guitar.*

Silent *u* should be dropt after *q*, *conquer* being thus distinguisht from *conquest :*

Antique, antiqe ; *conquer*, conqer ; *coquette*, coqette ; *critique*, critiqe ; *exchequer*, excheqer ; *etiquette*, etiqette ; *lacquer*, lacqer ; *lacquey*, lacqey ; *liqueur*, liqeur ; *liquor*, liqor ; *marquee*, marqee ; *masquerade*, masqerade ; *mosquito*, mosqito ; *oblique*, obliqe ; *opaque*, opaqe ; *piquant*, piqant ; *pique*, piqe ; *piquet*, piqet.

The combination *q + u* is, of course, always historical ; but to recall the older spelling the reader wil only hav to remember that the *q* of *conqer*, etc., is an abreviation of *qu*. *Queue* may be writn *qeu*, but it is simpler to adopt the alternativ spelling *cue*.

[This change oversteps the natural limits of the lists. It oversteps the etymological limit. It extends the use of *q* to a sound which *k* and *c* ar finaly to reprezent. It wil be specialy objectionabl to the peple on acount of its queer look. Better leav theze words awhile.]

ue is historicaly useless (due to the influence of Modern French spelling) in the following words after *g*, and should be dropt :

Apologue (apolog), *catalogue, colleague, decalogue, demagogue, dialogue, eclogue, epilogue, harangue* (harang), *league, monologue, mystagogue, pedagogue, prologue, synagogue, tongue* (tung).

Neither the *e* nor the *u* can be dropt in *fatigue, vague,* etc., altho even the ordinary orthografy drops the *ue* in *demagogism.*

The dissyllabic *ague* and *argue* should drop the *e,* being thus distinguisht from the monosyllabic *plague,* etc. :

Ague, agu ; *argue,* argu.

[Look as if sounded *agoo, argoo.* Some reformers use *ue* everywhere for *iu.* It is better to leav *ague, argue.*]

Silent *ue* should be dropt after *q* wherever the *u* is silent and the *e* not required for lengthening :

Arabesque, arabesq ; *arabesques,* arabesqs ; *burlesque ; burlesqued,* burlesqt ; *casque ; cheque,* cheq [check] ; *cinque,* cinq ; *grotesque,* grotesq ; *mosque,* mosq.

ue is not more required in the English *cinque* that in the French *cinq.* [A bad change. See under *u* p. 63. Better put in *k* (arabesk) or let the words alone for the prezent.]

y is etymologicaly wrong in *rhyme* and *thyme :*

Rhyme, rime ; *thyme,* time [?].

Rhyme is the Old English *rím,* and the current spelling is an attempt to show a conection with the Greek *rhythmós,* with which it has nothing to do. *Thyme* cums ultimately from the Greek *thýmon,* but thru Old French ; in Midl English it is writn *time.*

CONSONANTS.

dubl *b, d, g, n, r, t,* ar generaly not dubld finaly after short vowels, and the following exceptions should follow the general analogy :

Add (ad), *adds* (ads), *butt, ebb, egg, err, inn, odd, purr, whirr.*

f, l, s, shoud be writn singl (except in *-all*) :

Bailiff, bailif ; *buzz,* buz ; *dull,* dul ; *dulls,* duls ; *dulled,* duld ; *full,* ful ; *staff,* staf ; *stiff ; stuff ; stuffs ; stuffed,* stuft ; *whizz,* whiz.

ll after *a* is required to keep up the distinction between *Hal* and *hall,* etc.

Final *ck* and *ss* must be left as they ar til the use of *k* and *s* is regulated.

off must be left til *of* is alterd to *ov.*

Wherever a dubl consonant cums before another consonant it may often be simplified :

Battle, batl ; *kettle,* ketl ; *ripple,* ripl ; *wriggle,* wrigl ; *written,* writn.

ck and *ss* retaind, as in *picks, pickt, tassl.*

Dubl consonants ar generaly simplified in unaccented syllabls, and this rule should be carried out with *ll* and *tt* also :

Curvetting, curveting ; *fidgetting,* fidgeting ; *traveller,* traveler ; *travelling,* traveling.

Travling is thus distinguisht from *rebelling.* The distinction between *gravelly* and *gravely* may be kept up by omitting the useless *e* in the former : *gravly, gravely.* [It is not clear whether it is intended to change the pronunciation of *gravelly* from three syllabls to two, which would be bad, as no business of spelling reform ; or whether *l* in *gravly* is intended to be syllabic, *grav-l-y.* This is bad, as " caviare to the general."]

ck, as in *mimicking,* must be left.

There ar many words beginning with unaccented prefixes in which the analogy of Latin words like *accuse, commit, immure,* has led to an unhistorical dubling. Such words as *account, allow, arrive, attack,* and many others, wer taken straiht from Old French, where they had singl consonants, the dubling being a later etymological fancy. In such words as *affront* and *affair,* from *a front, a faire,* it is based on sheer ignorance ; as also in the nativ English words, *accursed, afford, affright,* from Old English *acursod, aforðian, afyrht.* In short, this dubling has litl or no etymological value, and had better be simplified everywhere, as in :

Abbreviate, abreviate ; *accuse,* acuze ; *acquit,* aquit [no] ; *address,* adress ; *adjust,* ajust ; *affair,* afair ; *arrange, assist, attack, command, commit, connect,* etc.

Acquit, adjust, etc., ar, of course, equivalent to *accwit, addzhust.*

The dubl consonants must be kept in accented syllabls, as in *aggravate.*

Consonants may, of course, be dubld or kept dubl where necessary or convenient, as in *detter* for *debtor, added, whizzing.*

b is etymologicaly wrong in *debt, doubt, subtle,* which cum from the Old French *dete, doute, sutil,* theze being also the older English spellings. The *b* in *-mb* is etymologicaly useless, having often been added without reazon, as in *limb =* Old English *lim :*

Bomb, bom ; *crumb,* crum ; *debt,* det ; *debtor,* detter ; *doubt ; dumb ; lamb ; limb,* lim ; *numb ; plumb , plumber,* plummer ; *redoubt,* redout ; *subtle,* sutl ; *succumb,* sucum ; *thumb,* thum.

Detter is a frequent Tudor spelling.

b is unhistorical in *crumb* (O.E. *cruma*), *limb* (O.E. *lim*), *numb, plumb* (O. F. *plum* cf. *plummet*), *thumb* (O. E. *þuma*).

c. Initial *c* in *cinder,* from Old English *sinder,* is due to a mistaken etymology from French *cendre.*

5

Medial *c* is writn unetymologicaly for *s* in a large number of words, but at prezent it is not advizabl to restore the *s*, except where a consonant precedes :

Cinder, sinder; *expence*, expense; *fierce*, feerse [fierse]; *hence*, hense; *once*, onse; *pence*, pense; *scarce*, scarse; *since*, sinse; *source*, sourse; *thence*, thense; *tierce*, teerse [tierse]; *whence*, whense.

Midl English *hennes, ones, pens*, etc.

ch. For *ache* the older *ake* should be restord. *anchor* was spelt *anker* in erlier English : it has been refashiond after the Latin *anchora*, itself a corupt spelling of Greek *ágkūra*. The *h* in *chamomile, choler, cholera* (cf. *colic*), *melancholy, school, stomach*, is a late insertion paralel to that of *b* in *debt :* in Midl English theze words wer writn *camomille, coler(ik), melancolie, scole, stomak*. For *choir* the older *quire* may be revived.

ch may be retaind in *stomachic*, etc.

d. The dropping of the *e* of *-ed* involvs the change of *d* into *t* after a voiceless consonant, together with the simplification of dubl consonants.

Barred, bard; *crossed*, crost; *erred*, erd; *looked*, lookt; *pulled*, puld; *rained*, raind; *restored* [stet], restord; *slipped*, slipt; *tugged*, tugd; *whizzed*, whizd.

Length-marking *ĕ* must be retaind, as in *chafed*, [*restored*] ; also after *c* and *g*, as in *chanced*, *singed*. *ck* had better be retaind for the prezent, as in *pickt*.

g is a late insertion in *feign* (cf. *feint*), *foreign, sovereign* (on the analogy of *reign*, with which it is totaly unconected).

Feign, fein; *foreign*, forein [foren]; *sovereign*, soverein [soveren].

It has been propozed to restore Milton's *sovran*, but this is a hybrid Italian spelling. [*Soverein* may as wel be stigmatized as an anachronism. The words which in erly English wer spelt *-ain* and *-ein*, from the French, hav either taken *-ain* exclusivly, which is the common fact, or *-en*, as *citizen, denizen, dozen, sudden*, or *-an*, as *human*. The best spelling is *soveren, foren*.]

gh. The *h* is etymologicaly useless in *aghast, burgh, ghost* (O. E. *gást*).

gh in *night*, etc., is a late and clumzy substitute for Old English *h* (*niht, dohtor*, etc.). The *g* should be omitted wherever *gh* is silent. Where *gh* =*f*, it may either be provizionaly retaind or else changed to *f* (see Apendix), as has alredy been done in *draft* = *draught*, and, at an erlier period, in *dwarf* from Old English *dweorh*.

In *delight, haughty, sprightly, gh* is etymologicaly wrong, and the erlier spellings should be restord.

Aghast, agast; *daughter,* dauhter [dauter]; *delight,* delite; *eight,* eiht [eit]; *ghost,* gost; *haughty,* hauty; *high,* hih [no]; *higher,* hiher [no]; *height,* hiht [see under *ei,* p. 61]; *night,* niht [no]; *plough,* plouh [plow]; *sprightly,* spritely; *straight,* straiht [strait]; *thorough,* thuroh [thuro]; *though,* tho; *through,* thru; *weight,* weiht [weit].

h is alredy often dropt in the spellings *tho', thro'.* And see *rhyme,* p. 64.

l dropt in *could* (Old E. *cúðe*), which ows it to the false analogy of *would* and *should,* where it is historical:

p in *receipt* is a modern insertion, which has not been made in the paralel *conceit, deceit,* etc.

ph for *v* in *nephew* is unmeaning, and the French spelling should be restord: *nephew,* neveu [if the pronunciation is prezervd].

For the change of *ph* into *f* see Apendix.

q. For *quay* the older fonetic *key* may be restord.

s is wrongly inserted in *aisle* (O. F. *ele*), *demesne, island* (O. E. *ígland*), *isle:*

Aisle, aile; *demesne,* demene; *island,* iland; *isle,* ile [perhaps we might wait].

In *isle* the *s* is historical in the oldest Fr., but not in E., which writes *ile, yle* from the beginning.

The *e* of *aile* is retaind to distinguish it from *ail.*

The retention of *s = z* is the cheef obstacl to the regulation of silent *e* (p. 59). As the change of inflectional *s* in such words as *dens, gives,* would involv a disproportionately large number of alterations, it is advizabl to leav it unchanged at first, as also in very common words, such as *as, is, was.*

The change is especialy recomended, 1, in distinctiv words, such as *use* (verb); and 2, in the termination -*ise:*

Abuse vb., abuze; *advertise,* advertize; *choose,* chooz; *chosen,* chozen; *close* vb., cloze; *diffuse* vb., difuze; *dissolve,* dizolv; *excuse* vb., excuze; *house* vb., houz; *mouse* vb., mouz; *pleasure,* plezure; *raise,* raiz; *refuse* vb., refuze; *rise,* rize.

z is alredy in use in *freeze, frozen* (tho not in *choose, chosen*), in *size, furze, civilize,* etc. Besides its purely fonetic use in nativ English words, it is always writn both foneticaly and etymologicaly in Greek words. Hense sum object to the spelling *analyze* (Gk. *análysis*) as unetymological; but the question is simply whether we ar to carry out the English fonetic or the Greek etymological use of *z:* if the latter, we must write *freese, sise,* etc.; if the former, *analyze.*

sc. The *c* is eroneously inserted in *scent* (Fr. *sentir*) and *scythe* (O. E. *síðe*) The *s* is equaly wrong in *scimitar* (Fr. *cimeterre*) and *scissors.* When *sceptic* is pronounced with *k,* it should be considerd as a Greek word, and writn acordingly.

Scent, sent; *sceptic,* skeptic [?]; *scimitar,* cimitar [no]; *scissors,* cissors [no]; *scythe,* sithe.

With *skeptic* compare *skeleton ; scissors* has no conection with *scindere.* [Better not hasten to giv *c* the sound of *s.*]

tch. The *t* is unetymological, and is not more required in *witch* than in *which.* It should be dropt everywhere, which can be done without cauzing ambiguity :

Catch, cach; *catches,* caches; *fetch* ; *fetching* ; *notch* ; *pitch* ; *witch.*

w is unetymological in *whole* (O. E. *hál ;* cf. *heal*).

Whole, hole.

APENDIX.

The following changes wer advocated by so large a majority that it was thoht advizabl to include them among the imediate reforms, but to relegate them to an apendix, as being inconsistent with the principl of etymological limitation.

gh. Substitute *f* for *gh* where so pronounced, as has alredy been done in *draft* (in one of its meanings) and *dwarf :*

Chough, chuf; *cough,* cof ; *draught,* draft ; *enough,* enuf ; *laugh,* laf ; *laughter,* lafter; *rough,* ruf ; *slough,* sluf ; *tough,* tuf ; *trough,* trof.

The vowels in theze words hav but litl. historical value. The *u* in most of them, such as *cough, laugh, trough,* is not original ; cf. O. E. *cohhettan, hlihhan, trog; enough, tough =* O. E. *genóh, tóh rough = rúh.*

ph. If *f* wer substituted for *ph* everywhere, as in Italian, Spanish, and the Scandinavian languages, a letter would be saved, and etymology would not be apreciably obscured :

Blaspheme, blasfeme; *camphor,* camfor ; *phantasm,* fantasm ; *philosophy,* filosofy ; *photograph,* fotograf; *sphere,* sfere.

With *phantasm* cf. *fancy.*

IV. — *History of the* a-*Vowel from Old Germanic to Modern English.*

By BENJAMIN W. WELLS, Ph. D.,

FRIENDS' SCHOOL, PROVIDENCE, R. I.

The subject of this paper is the history of the sound *a* in English accented syllables from the separation of the Germanic tribes till the present time. It will show both from what sounds *a* came, and

what sounds came from *a*. This growth can be most clearly seen by comparing with one another a series of stages in the history of the language. The origin and development of the Old Germanic *a* will first claim attention. For this Fick is the best, though sometimes an unreliable, authority. Any word that is common to the Old English and the East Germanic dialects, Gothic and Old Norse, may be regarded as within our scope ; so, too, words which, though they may not occur in East Germanic, are found in Pre-Germanic dialects. Second, the Old English, in which I have used the normalized spelling of the time of Alfred, and the accentuation of Zupitza. The poetry and earlier prose only have been considered. Third, the Middle English at its rise, as it appears in the Ormulum, for which I have used my own manuscript grammar of the Ormulum in the Harvard College Library. Fourth, the English of our own time. Here I have followed Brücke in the phonetic analysis, and Webster in pronunciation.

The following abbreviations have been used : o.g., for Old Germanic ; g., for Gothic ; o.n., for Old Norse ; o.h.g., for Old High German ; o.s., for Old Saxon ; o.e., for Old English ; m.e., for Middle English ; n.e., for New English.

SYNOPSIS.

I. THE OLD GERMANIC a.

A. — Its Origin. There seem to have been two *a* sounds in Indo-Germanic, each with a distinct ablaut, which, in Greek, appeared as ā, a and o, ε. The third step, or vanishing of *a*, was usually filled by svarabhakti, or in other ways. But while the two ablauts were so sharply distinguished in Greek, the second vowel of the first (a) and the first of the second (o) became identical in O.G., and remained so in O.E., where the first ablaut appears in fōr, faran, furt, and the second in singan, sang, sungon. But while the O.G. *a* had thus a wider range than any Indo-Germanic vowel, its sphere was encroached upon by lengthening of *a*-final and by the influence of nasals, liquids, and epenthesis, which caused some confusion in the ablauts. This subject has been exhaustively treated by Johannes Schmidt in his *Vocalismus*, and may be passed over here.

B. — Its Development in O.E. From the O.G. period till the eighth century we know little of the language of our ancestors; but with the very beginning of their literature we note a most remarkable change; *a* has become almost an uncommon sound, while the O.G. vowel is represented by no less than seventeen sounds, or groups of sounds. Seven causes led to this result: 1. tone-lowering; 2. lengthening in auslaut; 3. tone-raising; 4. breaking; 5. contraction; 6. umlaut; 7. the palatalizing of preceding consonants. This was the order in which they acted, although the changes often overlapped one another; and in this order, therefore, I will consider them.

1. Tone-lowering. While the O.G. *a* was of the Italian type, the O.E. *a* had a deeper sound, as in the N.E. path. We may suppose that all *a*'s were subject to this change; but it has survived only before nasals, and before single consonants followed by *a, o, u* or followed by a vowel derived from these.

In the following list of words with O.E. *a* corresponding to O.G. *a*, I give first the O.E. word, then the East Germanic word, which gives it its claim to be considered O.G., and, lastly, the page of the third volume of Fick's *Vergleichendes Wörterbuch der Indo-Germanischen Sprachen* (3d edition), where these and other cognate words may be found.

The strong verbs are classified according to the vowel of the preterit singular in Old Germanic. Class I. had pret. sing. *a* fol-lowed (a) by a mute or fricative, (b) by a nasal or liquid, (c) by

two consonants ; II. pret. sing. _ai ;_ III. pret. sing. _au ;_ IV. pret. sing. _ō ;_ V. pret. sing. formed by reduplication.

The letters _ae_ stand for the short vowel sound of _a_ in _hat._ The sound should be printed _æ._ The corresponding long sound is printed _ǣ._

Before n :

anda, O.N. andi, 14.
anga, G. -agga, 11.
bana, O.N. bani, 196.
blanca, O.N. blakki, 221.
brand, O.N. brandr, 205.
brant, O.N. brattr, 216.
cran, O.H.G. cranuh.[1]
cranc, O.N. krankr, 49.
grandor-, O.N. grand, 109.
hana, G. hana, 61.
hand, G. handus, 61.
lang, O.N. langr, 264.
mann, G. manna, O.N. maðr, 229.
manian, O.H.G. manēn.[2]
rand, O.N. rönd, 246.
sand, O.N. sandr, 319.
scanca, O.N. in skenkja, 330.
spana, O.N. speni with umlaut, 353.
standan, G. standan, 340.
stange, O.N. stöng, 344.
strang, O.N. strangr, 348.
tang, O.N. töng, 116.
þrang, O.N. þröngr, 139.
wang, O.N. vangr, 288.
wanian, O.N. vana, 279.
And in the 1st and 3d sing. pret. of verbs of class I.c.
band, G. band, 200.
brann, G. brann, 205.
cann, G. kann, 40.
dranc, G. dragk, 153.
fand, G. fanþ, 172.
gann, G. -gann, 98.
hrand, O.N. hrätt, 83.
lann, G. -lann, 263.
rann, G. rann, 251.
sanc, G. sagq, 318.

sang, G. saggv, O.N. söng, 316.
slang, O.N. slöng, 359.
spann, G. spann, 353.
sprang, O.N. sprakk, 356.
stanc, O.N. stökk, G. -stagq, 343.
wand, G. -vand, 285.
wann, G. vann, 286.

Before m :

camb, O.N. cambr, 41.
fram, O.N. fram, G. fram, 177.
gamen, O.N. gaman, 101.
gamol, O.N. gamall, 101.
gram, O.N. gramr, 110.
ham, O.N. hamr, 64.
hama, O.N. hami, 64.
hamelian, O.N. hamla, 65.
hamm, O.H.G. hamma.[3]
hamor, O.N. hamarr, 64.
hwam, O.N. hvammr, 92.
lama, O.N. lama, 267.
scamu, O.N. skömm, 332.
nama, G. namō, 161.
tam, O.N. tamr, 117.
wamb, G. vamba, 290.
And in the 1st and 3d sing. pret. of verbs of class I.b and c.
cwam, G. qam, 53.
nam, G. nam, 160.
swamm, O.N. svamm, 362.

Before a consonant + a in O.E :

acan, O.N. aka, 8.
apa, O.N. api, 18.
alan, O.N. ala, 26.
bacan, O.N. baka, 197.
-dafen-, G. -dabans, 144.
-daga, O.N. -dagi, 144.
dragan, O.N. draga, 152.
faran, O.N. fara, 173.

[1] Not East-Germanic, but certainly o.G. ; _cf._ Lithuanian garny-s, 43.
[2] Not East-Germanic, but certainly o.G. ; _cf._ Latin moneo, 230.

[3] Not East Germanic, but certainly o.G.; _cf._ Greek κνήμη, 65.

hara, O.H.G. hasa.[4]
galan, O.N. gala, 104.
gnagan, O.N. gnaga, 159.
grafan, O.N. grafa, 109.
hladan, O.N. hlaða, 87.
maða, G. maþa, 224.
maga, O.N. magi, 227.
mara, O.N. mara, 232.
naca, O.N. nökkvi, 157.
sacan, G. sakan, 314.
scacan, O.N. skaka, 329.
scafan, O.N. skafa, 331.
scaðan, G. skaþjan, 330.
tacan, O.N. taka, 115.
wacan, O.N. vaka, 280.
wadan, O.N. vaða, 285.
waras, O.N. verjar.[5]

Before a consonant + *o* in O.E.:

afor, O.N. afar, 19.
alor, O N. ölr, 27.
atol, O.N. atall, 14.
daroð, O.N. darraðr, 146.
hafoc, O.N. haukr, O.H.G. habuh, 64.
hafola.[6]
hagol (also haegl), O.N. hagl, 60.

[4] Not East Germanic, but certainly O.G.; *cf.* Skt. çaça, 73.
[5] *Cf.* the Lat. -varii in German proper names; for instance, Angri-varii, 291.
[6] Not East Germanic, but certainly O.G.; *cf.* κεφαλή, Skt. kapāla, 62.

gafol, O.N. gafl, O.H.G. gabala, 100.
lago, O.N. lögr, 262.
sadol, O.N. söðull, 318.

Before a consonant + *u* in O.E.:

apulder, O.N. apaldr, 18.
cwalu, O.N. kvöl, 54.
faru, O.N. för, 174.
hasu, O.N. höss, 74.
lagu, O.N. lög, 261.
nafu, O.H.G. nabo.[7]
talu, O.N. tal, O.S. tala, 120.
þracu, O.N. þrekr with umlaut, 138.
walu, O.N. völr, G. valus, 297.

Before a consonant + -*ia*- for older -*ai*- or -*ō*- in weak verbs.

hatian, G hatan, O.N. hata, 60.
lapian, O.N. lepja, M.H.G. leffen with umlaut, 266.
laþian, G. laþōn, O.N. laða, 263.
sparian, O.N. spara, 354.

Before a consonant + *e* for older *a* or *u*.

hacele, G. hakuls, O.N. hökull, 58.
nafela, O.N. nafli, O.H.G. nabalo, *cf.* ὀμφαλός, 160.

[7] Not East Germanic, but certainly O.G.; *cf.* Lettish naba, 160.

In comparison, declension, and conjugation, *a* takes the place of O.G. *a* after a single consonant followed by the endings -a, -as, -ode, -or, -on, -ost, -u, -um; -e for G. -ō, -ai; -ena for G. -ōnō; -ende for G. -and. Thus daga, dagas, dagum, from daeg; fatu, fatena, but faet; macode; magon, but maeg; hraðe, hraðor, hraðost, but hraeð; farende, fare, for G. farands, farai. Before an O.E. *e* there is some vacillation even in early documents.

Except in these cases *a* is rare in O.E. The only other cases of O.G. *a* with this sound in O.E. which are known to me are:

asce,[8] O.N. askr, 29.
wag,[9] G. vaddjus, 302.

scralletan,[10] O.N. skröllta, 339.
ac (also oc), G. ak.

[8] Also axe and aesce.
[9] Also wah and waeg.

[10] Twice in poetry, Grein, *Gloss.* ii. 411.

And in the following cases in words confined to prose:

af- also aef-, G. af-, 18.

crabba,[11] O.N. krabbi, O.H.G. chrepazo, 50.

sal,[12] O.N. salr, masculine, 320.

[11] The etymological spelling would be with one *b*: hence *a* for *ae*.

[12] Neut., also sael masc. and sele fem.

wascan,[13] O.N. vaska, 301.

To these Fick adds four others unknown to me in O.E:

clappan, O.N. klappa, O.H.G. chlaphōn, lappa, O.N. lappi, 266; *cf.* λοβός. [51.

flat, O.N. flatr, 194.

wase, O.H.G. waso, O.N. vos, 301.

[13] Poetry has waesced once. Grein, *Gloss.* ii. 641.

Occasionally *a* is found for *éa* and *ae,* but this has no historic importance; thus, all for éall, al for ael, and the like.

Before nasals an *a* may appear as *o*; for instance, monn, hond, nom, for and with mann, hand, nam. This occurs in a few other words also.

oc (also ac), G. ak, O.H.G. oh.
of (also af-, aef-), G. af, 18.

nosu (also naes), O.N. nös, O.H.G. nasa, rodor, O.N. röðull, O.S. radar. [162.

In the O.E. words not certainly O.G., the same principles govern the use of *a,* and vacillations are equally uncommon.

2. Lengthening of final *a.* The beginning of this process is Pre-Germanic, but it survived the discarding of final consonants in West Germanic. The Germanic instances are:

bā, G. ba, 196.
hwā, G. hwas, 90.

swā, G. swa, 360.
twā, G. twa, 126.

When the word was not accented, it was not lengthened, but the vowel *a* became *e.* Thus the conjunction ge, G. ja-h, O.S. ja 243.

3. Tone-raising changed an O.G. *a* to *ae* before single final mutes or fricatives, except *w, h,* and before groups of double consonants except those beginning with *h, r, l,* and also before single consonants followed by *a* whenever this was reduced to *e* before the tone-raising tendency ceased. It is occasionally used for and with the umlaut *e*; for instance, gaest or gest, G. gasti-; faered or ferd, G. fariþ. The occasional use of *a* for *ae* has been already spoken of. Kentish glosses write *e* for *ae.*

The following O.G. words have *ae* in O.E.:

Before mutes:

haep, O.N. happ, 62.
aepl, O.N. apal-grār, 18.
haebban, G. haban; stem habai, 62.
aet, G. at, O H.G. az, 13.
faet, O.N. fat, 171.

faet, O.N. fet, 171.
haett, O.N. hattr, 60.
hwaet, O.N. hvatr, 91.
waeter,[14] O.H.G. wazar.

[14] Not East-Germanic, but certainly O.G.; *cf.* Skt. udra, 284.

blaed, O.N. blað, 219.
glaed, O.N. glaðr, 112.
waed, O.N. vað, 285.
blaedre, O.N. blaðra, 219. .
faeder, O.N. faðir, G. fadar, 167.
gaedeling,[15] G. gadiliggs, 98.
naedre, O.N. naðr, 156.
baec, O.N. bak, 198.
blaec, O.N. blakkr, 221.
-braec, O.N. brak, 215.
laec, O.N. lakr, 261.
wlaec,[16] O.H.G. welc.
wraec, G. vraks, 308.
aecer, G. akrs, 8.
aecern, O.N. akarn, G. akrana-, 8.
waecnian, O.N. vakna, 281.
aeg, O.N. egg, O.H.G. ei, 13.
daeg, O.N. dagr, 143.
waeg, G. vaddjus, O.N. veggr, 3˙2. .
faegn, O N. feginn, 170.
faegr, O.N. fagr, G. fagrs, 170.
haegl, also hagal, O.N. hagl, 60.
maegn, O.N. magn, 227.
maegr, O.N. magr. 228.
naegl, O.N. nagl, 159.
waegn, O.N. vagn, 283.

Before fricatives :

baeð, O.N. bað, 197.
hraeð, O.N. hraðr, 82.
faeðm, O.N. faðmr, 173.
maðel, G. maþla-, O.N. māl, 229.
glaes, O.N. gler-, 104.
graes, O.N. gras, 110.
naes, O.N. nös, 162.
hwaes, O.N. hvass, 92.
aesc, O.N. askr, 29.
baest, O.N. bast, 200.
draeste,[17] O.H.G. trestir.
faest, O.N. fastr, 171.
hlaest, O.N. hlass, 87.
maest, O.N. mastr, 237.
raesn, G. razn, 246.
aef, G. af, 18.

haef, O.N haf, 63.
staef, O.N. stafr, 345.
graeft, O.N. gröptr, 109.
haefr, O.N. hafr, 62.
haeft, O.N. haptr, 63.
hraefn, O.N. hrafn, 83.
þraeft, O.N. þrapt, 139.
waefre, O.N. vafr-logi, 289.

Before liquids :

ael, O.N. alr, 28.
hwael, O.N. hvalr, 93.
wael, O.N. valr, 297.
aerende, O.N. örendi, O.H.G. arunti, 21.
faer, O.N. far, 174.
spaer, O.N. sparr, 354.
waer, O.N. vör, 292.

Further :

In the 1st and 3rd pret. sing. of strong
    verbs, class I., except where the vowel
    is followed by a nasal or liquid :
gaet, also geát, G. bi-gat, 98.
maet, G. mat, 223.
saet, G. sat, 316.
baed, G. bad, 200.
traed, O.N. trað, 125.
braec, G. brak, 215.
raec.[18]
spraec.[19]
wraec, G. vrak, 308.
laeg, G. lag, 261.
waeg, G. vag, 282.
gaef, also geáf, G. gab, 100.
swaef, O.N. svaf, 361.
waef, O.N. vaf or ōf, 289.
cwaeð, G. qaþ, 53.
laes, O.N. las, 267.
naes, G. -nas, 161.
waes, G. vas, 300.
stael, G. stal, 347.
baer, G. bar, 202.
scaer, O.N. skar, 332.
taer, G. -tar, 118.
baerst, O.N. brast, 217.

---

[15] M.H.G. geteline with umlaut.
[16] Not East-Germanic, but certainly o.G. ; *cf.*
Church Slavonic vlaga, 298.
[17] Not East-Germanic, but certainly o.G. ; *cf.*
Church Slavonic, droštija, 154.

[18] The preterit does not occur in East-Ger-
manic, *cf.* G. rakjan.
[19] Not East-Germanic, but *cf.* Lithuanian
spragù.

braegd, O.N. brā, 215.

fraegn, G. frah, O.N. frā, 189.

Residua :

In the passive participle of some verbs of class IV., for and with *a*. For instance: hlaedan, also hladen, O.N. hlað-inn; flaegen, also flagen, O.N. fleginn; slaegen, also slagen, O.N. sleginn.

We find *ae* where we should expect umlaut in aelf, usually elf, O.N. ālfr, M.H.G. alp without umlaut, 28.

aeled, O.N. eldr, 27; *cf.* also aelan, which is not O.G., but is a cognate word.

haele, O.N. halr, 69. The vowel corresponds, however, to the original *a*-stem; the ending to a new *ja*-stem. *cf.* the derivative haeled.

Umlaut would not be irregular in the following words from the principal list: aeg, waeg, wlaec, faet, gaedeling, draeste.

We find ae where we should expect breaking, with or without umlaut, in haerfest, O.N. haust, N.H.G. herbst, 68, haern, O.N. hrönn, O.H.G. harn, 68; baelg (also bylig), only in prose, G. balgi-, 208.

The use of *ae* in words not certainly O.G. follows the same principles which govern the O.G. words.

4. Breaking of *a* to *éa* occurs before O.G. *r, l, h* followed by a consonant, before *h*, and occasionally before a mute followed by *o* or *u*. The breaking appears as *ēa* before *w*, and as *i* in some cases before *ht*. The breaking is due to an *u*-sound, which was either present in the following syllable or was produced from *l, r,* or *h*, by svarabhakti. This development is common to most Indo-European languages.[*] The vowel thus formed changed its position, and became affixed to the preceding vowel, producing *a*ᵘ from *a*, which was raised to *éa* by the same tendency that produced *ae* from *a*. In a few cases, however, the tone-raising has not been completed, and we find *éo* for *éa*. All these have the regular forms in *éa* except réord, G. razda, 252, and éornest, superlative to G. arni-, O.N. ern with umlaut. The breaking is sometimes spelled *e* in the Mss., and *ae* in Kentish and Northumbrian.

Breaking occurs in the following O.G. words :

With mutes :

béadu, O.N. böð, 196.

éatol, also atol, O.N. atall, 14.

téagor, also tēar, G. tagr, O.N. tār, 115.

With fricatives :

éafora, O.S. abharo.[20]

héafoc, O.N. haukr, 64.

héafola, certainly O.G.; *cf.* κεφαλή and Skt. kapāla, 62.

héafod, O.N. höfuð, 62.

héasu, usually hasu, O.N. höss, 74.

héaðor, certainly O.G.; *cf.* κότυλος, 61.

héaðu, O.N. Höðr, 60.

With liquid + consonant :

déared, also daroð, O.N. darraðr, 146.

déar, G. ga-dars, 145.

héarpe, O.N. harpa, 68.

[20] Not East Germanic, but certainly O.G.; *cf.* Old Baktrian apara, 19.

[*] See Schmidt, *Vocalismus*, II. ; Braune, *Quantität der Endsilben ;* Paul und Braune, *Beiträge*, VI. 46 ff.

wéarp, o.n. varp, 295.

swéart, o.n. svartr, 362.

béard, o.h.g. bart, certainly o.g.; *cf.* Church Slavonic, brada, 207.

géard, o.n. garðr, g. gards, 102.

héard, o.n. harðr, 68.

méarc, o.n. mörk, g. marka, 233.

héarg, o.n. hörgr, 67.

méarg, o.n. mergr, o.h.g. marg, 236.

éarfoð, g. arbaiþs, o.n. erfiðr, 25.

þéarfu, o.n. þörf, 132.

cnéar, o.n. knörr, 48.

éaru, o.n. örr, 21.

géaru, o.n. görr, 102.

spéarwa, also spéara, o.n. spörr, g. sparva, 354.

éarh, o.n. ör ; *cf.* g. arhvazna, 24.

féarh, o.h.g. farh.[21]

méarh, o.n. marr, o.h.g. marah, 234.

céarl, also céorl, o.n. karl, 43.

béarm, o.n. barmr, 203.

éarm, o.n. armr, 22?

féarm, also féorm, o.n. farmr, 174.

héarm, o.n. harmr, 69.

þéarm. o.n. þarmr, 131.

wéarm, o.n. varmr, 292.

béarn, o.n. barn, g. barn, 202.

éarn, o.n. örn, 21.

géarn, g. garn, 101.

scéarn, o.n. skarn, 333.

wéarn, o.n. vörn, 291.

héalt, o.n. haltr, g. halts, 72.

méalt, o.n. malt, 236.

séalt, o.n. salt, 321.

wéaltian, g. valtjan, 298.

béald, o.n. ballr, *cf.* g. balþaba, 209.

céald, o.n. kaldr, g. kalds, 44.

éald, g. alds, 26.

féaldan, o.n. falda, g. falþan, 182.

géaldor, o.n. galdr, 104.

héald, o.n. hallr, 71.

héaldan, o.n. halda, g, haldan, 73.

stéaldan, g. staldan.

wéaldan, g. valdan, o.n. valda, 299.

wéalcan, o.n. valka,[22] 298.

éalgian.[23]

géalga, g. galga, o.n. gālgi, 105.

céalf, o.n. kālfr, 45.

héalf, o.n. hālfr, ͡g. halbs, 73.

séalfian, g. salbōn, 321.

béalu, o.n. böll, g. balva-, 209.

éalu, o.n. öl, 27.

féalu, o.n. fölr, 183.

héals, o.n. hāls, g. hals, 71.

séalh, o.h.g. salaha, o.n. selja, 320.

Wéalh, o.h.g. Walah, o.n. in valskr, 299.

céallian, o.n. kalla, 45.

éall, o.n. allr, g. alls, 26.

féallan, o.n. falla, 183.

géalla, o.n. gall, o.h.g. galla, 103.

héall, o.n. höll, 70.

stéall, o.n. stallr, 341.

héalm, o.n. hālmr, 70.

séalma, o.s. salma.[24]

Before *h* and *h* + consonant :

éah, o.n. ā, g. ahva,̓ o.s. aha, 10.

genéah, g. ganah, 157.

séah, g. sahv, 315.

þéah, o.n. þā and þō, 127.

éax, g. aqizi, 8.

féax, o.n. fax, 170.

léax, o.n. lax, 261.

séax, o.n. sax, o.s. sahs, 315.

wéaxan, o.n. vaxa, 281.

éahta, o.n. ātta, g. ahtau, 11.

hléahtor, o.n. hlātr, o.h.g. hlahtar, 87.

méaht,[25] g. mahti-, 227.

méaht, also miht,[26] g. maht, 226.

néaht,[27] g. nahti-, o.n. nātt, 158.

ombéaht,[28] g. andbahta-, 16.

Breaking occurs in the preterits of the following o.g. strong verbs, class I. c :

béalg, o.h.g. balch.[29]

swéalh, o.n. svalg, 364.

[24] Certainly o.g.; *cf.* στέλμα, 320.

[25] Also mieht and miht, umlaut.

[26] And méahte, also mihte (g. mahta, the 2d sing. pres., and pret. of maeg), have *i*, after the analogy of the umlauted noun.

[27] Also nieht and niht, umlaut.

[28] Also ombieht and ombiht, umlaut.

[29] Not East Germanic, but certainly o.g.; *cf.* Prussian balg-nas, 208.

[21] Certainly o.g.; *cf.* Latin, porcus, 178.

[22] The o.e. verb is strong ; the o.n. weak.

[23] Certainly o.g.; *cf.* g. alhs, and ἀρκέω.

héalp, G. halp, 73.
swéalt, O.N. svalt, 363.
swéall, O.N. svall, 363.
géald, G. -gald, 105.
féalh, G. falh, 181.

béarg, G. barg, 206.
hwéarf, G. hvarb, 93.
swéarf, O.N. svarf, 363.
wéarð, G. varþ, 294.
wéarp, G. varp, 295.

Before *w* the breaking was *ēa*, not *éa;* for strong preterits so formed have passive participles like verbs with preterits in *ēa*. These are : cēaw, *cf.* Church Slavonic zivati, Fick, II. 351 ; hrēaw, *cf.* κρού-ω, κρο-αίν-ω, Fick, I. 32, 539 ; and, perhaps brēaw, *cf.* βρύ-ω, de-fon-tum, Fick, I. 696; Schmidt, *Vocalismus*, II. 269. These strong verbs are unfortunately not present in East Germanic ; but the type occurs in G. bliggvan, preterit blaggv. In other cases of breaking before *w*, the East Germanic has either *av*, which in O.N. becomes *ā*, or *aggv*, O.N. *ögg*, and this in West Germanic became auw = O.E. ēaw. In the same way that *éo* came to be used for *éa*, we have *ēo* for *ēa* in ēowe, O.H.G. awi, G. avi-str, 29, and in hrēow, O.N. hrār, 84. The following O.G. words also show this breaking in O.E.:

dēaw, O.N. dögg, 146.
fēawe, O.N. fāir, G. favai, 183.
glēaw, O.N. glöggr, 112.

hēawan, O.N. höggva, 57.
hnēaw, O.N. hnöggr, 81.
strēaw, also strēow, O.N. strā, 346.

Breaking is never found except under these conditions. In good Mss. it is rarely omitted. The only O.G. words in which it is usually omitted are noticed in 1 and 3.

5. Contraction of O.G. *a* with a following nasal + fricative or aspirate to *ō*, and of O.G. *a* with a following *h* + vowel to *ēa*, are regular in O.E. An *anh* + vowel becomes *ō*. Sometimes *g* is treated in the same way as *h*. The instances of this contraction are :

O.G. an = ō :

ōs, G. Ansi-, O.N. āss, 18.
gōs, O.N. gās. O.H.G. gans, 99.
ōðer, G. anþar, O.N. annarr, 16.
sōð, O.N. sannr, 318; *cf.* Skt. sant.
tōð, G. tanþus, O.N. tönn, 113.
brōhte, G. brāhta ; the nasal is found in the pres. bringan.
þōhte, G. þāhta, pres. þincan.
hōh, O.N. in hoell = O.E. hēla, with um-laut, 59.

O.G. anh + vowel = ō :

fōn, G. fāhan ; the nasal is found in the part. fangen, 170.
hōn, G. hāhan, O.N. hanga, 58.

There are no certainly O.G. words with *m* + fricative or aspirate following on *a* ; but sōfte, O.H.G. samfto, makes it probable that *m* and *n* would be similarly treated.

o.g. *ah* + vowel = *ēa* :

flēan, o.n. flā ; *cf.* participle flaegen, 193.

slēan, g. slahan; *cf.* participle slaegen, 35.

þwēan, g. þwahan; *cf.* participle þwae-gen, 142.

ēa, also éah, o.n. ā, g. ahva-, 10.

o.g. *ag* + vowel = *ēa* :

bēam, g. bagms, 199.

tēar (also téagor and tāēr), g. tagrs, o.n. tār, 116.

gēan, also gān, gēn, giēn, gagn, gegn, geágn. See Kuhn's *Zeitschrift*, xxvi. 36.

6. Umlaut is the epenthesis of an o.g. *i, j*, which causes a modification of the preceding vowel from *a* or *ae* to *e*, from *ēa* to *ie* and *i* (*y*), from *ō* to *ē*, and from *ēa* to *ie* (*ȳ*). As we have seen, *e* is occasionally written *ae ;* and *ie, ie* appear usually in later o.e. as *y, ȳ ;* the umlaut is also occasionally omitted. See 3.

Umlaut of *a* occurs in the following o.g. words :

Before nasals :

benn, g. banja, 196.

benc, o.n. bekkr, o.h.g. banch, 201.

bendan, g. bandvjan, 201.

ende, g. andeis, 17.

ened, o.n. önd, o.h.g. anut ; *cf.* Lithuanian anti-s, 17.

fenn, g. fanja-, 173.

feng, o.n. fang, o.h.g. fang, 170.

genge, o.n. gengr, o.h.g. gengi, 99.

grennian, o.n. grenja, 109.

hengest, o.n. hestr, o.h.g. hengist, 59.

hlence, o.n. hlekkr, 90.

mene, o.n. men, o.s. meni, 231.

mennisc, g. manńisks, o.n. menniskr, 230.

scencan, o.n. skenkja, 330.

strenge, o n. strengr, o.h.g. strang. 348.

þennian, g. þanian, o.n. þenja, 129.

gremman, g. gramjan, 110.

hlemman, o.n. hlemma, o.h.g. hlamōn, 87.

lemman, o.n. lemja, 266.

hlem, o.n. hlemmr, g. hlamma, 87.

Before mutes and fricatives :

hrepian, o.n. hreppa, 83.

sceppan, also sciéppan, g. skapjan, 331.

hebban, g. hafjan, 62.

betra, g. batiza, 199.

fetel, o.n. fetill, o.h g. fazzil, 171.

flet, o.n flet, o.h.g. flazi, 194.

hete, g. hatis, 60.

hwettan, o.n. hvetja, o.h.g. hwazzan. 91.

nett, g. natja-,160.

bedd, g. badja-, 200.

hnecca, o.n. hnakki, 81.

bec and bece, o.n. bekkr, o.h.g. bach, 197.

-brec (and -braec), o.n. brak, 215.

þeccan, o.n. þekja, o.h.g. dachjan, 127.

ecg, o.n. egg ; *cf.* Latin acies, 10.

ege, g. agis, 12.

gegn, o.n. gagn, m.h.g. gegen. See I. B. 5.

hefig, o.n. höfugr, o.h.g. hebig, 62.

efnan, o.n. efna ; *cf.* g. aban-, 19.

best, g. batists, 199.

gest, g. gasts, 106.

sceþþan, also sciéþþan, g. skaþjan, 330.

Before single liquids :

dweljan, o.n. dvelja, o.h.g. twaljan, 155.

hel, g. halja, 69.

elles, g. aljis, 28.

scel, o.n. skel, o.h.g. skala, 334.

sele, o.n. sel, o.s. seli, 320.

tellan, o.n. telja, o.h.g. zeljan, 120.

bere, o.n. barr, g. in barizeina-, 202.

berie, g. basja-, 210.

berian, o.n. berja, o.h.g. berjan, 204.

here, g. harjis, 65.

mere, g. mari-, o.h.g. mari, 232.

swerjan, g. svaran, 362.

Before *h*, *l*, *r*, + consonant, and before *h*, we have *ie* for *ea*.

íerfe, G. arbja-, 25.
míerran, G. marzjan.
míere, O.N. merr, O H G. merha, 234.
íeldra, G. alþiza 26, and íeldest, G. alþists.
íeldo, O.N. elli, O.S. eldī, O.H.G. altī, 27.
íelfet, O.N. ālft, O.H.G. albiz, 28.
hlíehhan, G. hlahjan, 87.
míeht, G. mahts; see 4.
níeht, G. nahts; see 4
ombieht, G. andbahts; see 4.

For O.G. an = O.E. ō.

ēst, G. ānsti-, 18.
hēla, O.N. hoell, 59 : see 5.
nēđan, G. nanþjan, O.N. nenna, 160.

For West Germanic am = O.E. ō.

sēfte, O H.G. samfti ; *cf.* sōfte, p. 77.

For O.G. av = O.E. ēaw.

hīege, G. havi, O.N. hey, O.H.G. houwe,
57 ; *cf.* hēawan.
íeg-, O.N ei, 10; *cf.* ēa, p. 78.

Umlaut occurs also in the dative singular and nominative and accusative plural of nouns whose stems end in a consonant. For instance, mann has menn in these cases ; gōs has gēs ; tōđ has tēđ ; and so on. In the conjugation, the 2nd and 3rd present indicative singular of class IV. usually have the umlaut of *a* to *e* and *ō* to *ē*. For example, faran has ferst, ferđ (but also sometimes *ae* and *a* for *e*) ; hōn has hēhst hēhđ. The umlaut in the inflection is, however, less active than in O.H.G. or O.N.

7. Preceding consonants exercise an influence on O.G. *a* only in the case of *w*, *g*, *c*, *sc*, *sl*. This is chronologically the last O.E. change and is in no case regularly carried out. *Wa* is contracted to *o* in the preterit of cuman, com (also cwom) for *cwam, G. qam. The palatals *g*, *c*, *sc* (and to these we must add *sl*) could develop after them a semivocalic sound, such as is heard in N.E. sky, kind, when these are pronounced skyai, kyaind. This is expressed in O.E. by *ed* for *a* and *ae*, *eŏ* for *o*, *ie* for *e*, *eā* for *ā*. Occasionally we find *a* written for *ed* in words where the regular spelling would be *ae*; but this seems to be a mere graphical error. The following O.G. words have these palatalized forms in O.E.

Before nasals :

sceámu ; also scamu, scomu, sceómu, O.N. skömm, 332.
sceámjan, also scamjan, scomjan, sceómjan, G. skaman, 332.
sceánca, O.N. in skenkja, 330.
geóng, also gang, O.N. gangr, 99.
sceánde, scand, sceónd, G skanda.

Before liquids, mutes, and fricatives :

ceáru, G. kara, O.H.G. chara, 42.
ceárjan, G. karōn, 42.

geáp, O.N. gap, 100.
geát, also gat, O.N. gata, 98.
geátwe, G. gatvō, 98.
sceáđa, also scađa, O.N. skaþi, 330.
sceáđan, and, with umlaut, sceđđan, sciéđđan, scyđđan, G. skaþjan, 330.
sceácan, also scacan, O.N. skaka, 329.
sceádu, also scaed, G. skadus.
sceál, G. skal, 334.
sceáft, G. skafts, 331.
-sceáp, O.N. sköp, 331.
sceápen, G. skapans, 331.

sceát, G. skatts, 330.

sleác, also slaec, O.N. slakr, 358.

In the preterits :

geáf, G. gab, 100.

-geát, G. -gat, 98.

From the umlaut e :

sciél, also scel, O.N. skel, 334.

sciéppan, also sceppan, scippan, scyp-
pan, G. skapjan, 331.

sciéððan, see sceáðan.

From the final ā :

geā, G. ja-h, O.H.G. ja, 243.

Owing to a confusion of *éa* with *éd*, some words are occasionally spelled with *a* in place of the regular *éa* ; thus galdor occurs for géaldor, and galga for géalga. It is sometimes doubtful on which letter the accent should be placed ; for instance, in geágn and giën ; see 5, end.

8. Thus by seven processes there were successively developed from O.G. *a*, first *a* and *o*, then *ā*-final, then *ae* and the breakings *éa* (*éo*, *i*), *ēa* (*ēo*). Contractions produced *ō*, *ēa* ; umlaut, *e*, *iè*, *ē*, *iè*. The palatal semivowel produced *ed* (*eó*), *iè*, *eā*, and once perhaps *iē*.

No Germanic dialect, except the O.N., is as complex in its development ; none is so regular. Restless energy and keen grammatical consciousness are characteristic of this period ; but the catastrophe of the conquest was soon to change their character and language, and check or divert the forces, the working of which has been thus far our subject.

II. The Old English a, its Origin and Development.

1. All O.E. *a*'s which can be traced to the O.G. will be found to correspond to O.G. *a ;* those of more recent origin, always to West Germanic *a ;* those of foreign origin, to *a* in the language from which they were taken. Examples of *a* for O.G. *a* have been given in I. B. 1. West Germanic examples are very common, but as they illustrate no new principle I omit them here.

2. The Ormulum is the first important literary work of the M.E. period. It is probably the manuscript of the author himself ; and, as the author is a painstaking orthoepist, we may take his work with some confidence, as representing the pronunciation of his time and dialect. He distinguishes short vowels by doubling the following consonants, but it requires only the most cursory examination to see that the relations of quantity are hopelessly confused. All O.E. *a*'s in accented syllables are represented by *a* in the Ormulum. Examples will be given in Part III.

3. In N.E., since the spelling is not phonetic, the letters and sounds must be treated separately.

The O.E. *a* is represented in 126 words, with the spelling *a* in every case except then, when, hemp, pebble (þanne, hwanne, hanep, papol), where the N.E. spelling is due to an *ae* for *a*, which appears in these words in very late O.E., and produces a secondary spelling *e* in M.E., which has now become regular.

These words are pronounced with vowel articulations, varying from the dark *a* in *swan* to the bright *a* in *lane*, — the determining power being in every case the accompanying consonants. Before all single nasals, liquids (except *r*), mutes, and fricatives, O.E. *a* is pronounced *e*. The examples are:

Before nasals:	Before mutes:	
came, cam (com).	ape, apa.	naked, nacod.
game, gamen.	gape, gapian.	rake, racian.
lame, lama.	shape, scapan.	sake, sacu.
name, nama.	taper, tapor.	shake, scacan.
same, same.	gate, gat (for geát).	snake, snaca.
shame, scamu.	hate, hatian.	stake, stacu.
tame, tama.	late, lata.	wake, wacian.
bane, bana.	mate, gemaca.	
crane, crana.	cradle, cradol.	**Before fricatives:**
lane, lane.	lade, hladan.	
mane, mane.	made, macode.	chafer, cafor.
vane, fana.	shade, scadu.	crave, crafian.
wane, wanian.	wade, wadan.	gave, gaf (for geáf).
	flay, flagen (part.).	grave, grafan.
	slay, slagen (part.).	behave, behafa (imv.).
Before liquids:	bake, bacan.	nave, nafu.
	quake, cwacian.	shave, scafan.
nightingale, nihtegale.	make, macian.	staves, stafas.
scale, scalu.		bathe, baðian.
tale, talu.		

Before *r*, the vowel sound approaches more nearly to *a*, and may be represented by *e*. The examples are:

care, caru (for ceáru).	hare, hara.	stare, starian.
fare, faru.	spare, sparian.	share, scaru.

Before a nasal followed by a consonant or a syllable, the pronunciation is *ae*. The examples are:

and, and.	hand, hand.	plant, plantian.
answer, andswarian	land, land.	angle, angel.
band, band.	sand, sand.	fang, fang.
brand, brand.	stand, standan.	gang, gang.
candle, candol.	strand, strand.	hang, hangen (part.).

6

sang, sang.	stank, stanc.	span, spann.
sprang, sprang.	thank, þancian.	than, þanne.
wrang, wrang.	anvil, anfilt.	ganet, ganot.
ancle, anclēow.	ban, bann.	lamb, lamb.
drank, dranc.	can, cann.	cram, crammian.
lank, hlanc.	began, be-gann.	dam, damm.
rank, ranc.	man, mann.	ram, ramm.
sank, sanc.	pan, panne.	swam, swamm.
shank, scanc.	ran, rann.	hammer, hamor.
shrank, scranc.		

Before $s +$ consonant the original sound of *a* is preserved. The examples are :

ass, assa.   castle, castel.   flask, flasce.   last, latost.

Before absorbed *g, f, w*, the spelling is *aw* and the sound *o*. The examples are :

dawn, dagenian.	law, lagu.	saw, sage.
draw, dragan.	maw, maga.	hawk, hafoc.
gnaw, gnagan.	saw, sagu.	awl, awel.
haw, haga.		

After *w* any one of these sounds *may* appear as *p*, but does not always do so.   Compare this with the influence of *w* in o.e., I. B. 7.

swan, swan.   wan, wann.   wander, wandrian.   wash, wascan.

The following ten words do not follow the principles just given. We have *ae* where we should expect *e* in *cat*, catt, *crab*, crabba, *ashes*, ascas, *saddle*, sadol.   The first three are irregular in o.e., having *a* for *ae*.   The n.e. sound is due to secondary forms in *ae* in o.e., which would be regular.   *Saddle* is unexplained ; the regular pronunciation would be as in *cradle* and *naked*.   We have *e* where we should expect *e* in *pebble*, papol, which is also irregular in its consonants, and is rare in o.e. and m.e.   We have *o* where we should expect *e* in *alder*, alor, owing to the introduction of *d ;* for following *ld* always lowers the sound of the preceding vowel — cf. *child*, *cold*, but, *hilt*, *calf*.   We have *e*, where we should expect *ae*, in *hemp*, *then*, and *when*, which have already been spoken of, p. 81, and in *many*, manig, through the analogy of *any*, āenig.

III.   The Middle and New English a.

1. In the Ormulum, *a* corresponds to *a* regularly, and is very often used for *ae*, *ea*, *ā*, *eā*, and less frequently for *e*, *āe*, *ēa*, *ēo*.   The short *a* is distinguished from the long by the doubling of the following

consonant, but the relations of quantity are much disturbed. Examples are :

M.E. a = O.E. a.

atell, atol.
care, caru.
charig, carig.
cnape, cnapa.
draghenn, dragan.
amang, on gemong.
anan, an ān (for on ān).
ange, anga.
band, band.
farenn, faran.
gang, gang.
hatenn, hatjan.
ladenn, hladan.
manig, manig.
-ware, waras.
annd, and.
hannd, hand.
ganngenn, gangan.
lanngedd, from lang.
a-manng, on gemong.

M.E. a = O.E. ae.

aþell, aeðel.
brasene, braesen.
dale, dael.
daghess, daeges (gen.).
faderr, faeder.
shaþig, scaeðig.
affterr, aefter.
allmesse, aelmesse.
bacc, baec.
brass, braes.

cwaþþ, cwaeð.
maggden, maegden.
fatt, faet.

M.E. a = O.E. éa.

ald, éald.
axe, éax.
cwaldenn, cwéaldon.
fald, -féald.
hald, -héald.
bridale, brȳdéalu.
all, éall.
callf, céalf.
cwarrterrne, cwéartern.
forrahht, forréaht.
hallf, héalf.
warrd, wéard.

M.E. a = O.E. ā.

an, ān.
a, ā.
awegg, āweg.
abad, ābād.
gal, gāl.
laf, hlāf.
laþ, lāð.
mal, māl.
slaw, slāw.
laþþe, lāð.
maddmess, māðmas.
wraþþenn, wrāðjan.
ann, ān.
atterr, ātor.
hallghenn, hālgian.

M.E. a = O.E. āē.

anig, āēnig.
mast, māēst.
slap, slāēp.
agg, āēg.
mannsenn, -māēnsumjan.
magg, māēg.
tahhte, tāēhte.
lasstenn, lāēstan.

M.E. a = O.E. ēa.

drah, drēah.
chappmann, cēapmann.
tawwenn, tēawjan.

M.E. a = O.E. ēo.

strawwenn, strēowjan.

M.E. a = O.E. e.

aghe (usually egge), ege.
forrwarrgedd, -werged.
marrgrote, meregrote.[80]
banncess, benca.[81]

Contractions.

nafe, ne haebbe.
nass, ne waes.
narrt, ne éarrt.
nan, ne ān.

[80] Due to French influence.
[81] More likely from the Dutch *bank.*

2. In N.E. the letter and the sound *a* must be separately treated. I begin with the letter. This occurs in 332 O.E. words. It will be enough to give a list of these, classified according to the pronunciation and according to the consonants which follow the *a*, omitting the words which have already appeared in the list of N.E. words in II. 3. The limitations and causes of the use of the sound *a* must be examined more carefully.

N.E. *a* is pronounced *e* in 50 words (p. 81) with the spelling *a* in O.E. and also in the following 46 cases :

N.E. a = O.E. ae.

dale, dael.
whale, hwael.
grave, graef.
haven, haefn.
raven, hraefn.
day, daeg.
may, maeg.
lay, laeg.
flay, from flaegen.
slay, from slaegen.
hail, haegl.
nail, naegl.
snail, snaegl.
tail, taegl.
fain, faegn.
main, maegn.
wain, waegn.

again, ongaegn.[82]
brain, braegn.
maid, maegð.
acre, aecer.
acorn, aecern.
spake, spraec.
brake, braec.
blade, blaed.
hazel, haesl.

N.E. a = O.E. e.

ail, eglan.
sail, segel.
-blain, blegen.
lain, legen.
rain, regen.
thane, þegn.

[82] Also pronounced e², *q. v.*

twain, twegen.
braid, bregdan.
lay, lecgan.
play, plegan.
say, secgan.
way, weg.

N.E. a = O.E. éa.

ale, éalu.
bale, béalu.

N.E. a = O.E. aē.

ate, aēt.
clay, claēg.
gray, graēg.
wave, waēg.
lady, hlaēfdige.

N.E. a = O.E. íé.

hay, híege.

N.E. *a* is pronounced e² in 7 words (p. 81) with O.E. *a*, and in the following 10 cases :

N.E. a = O.E. ae.

again, on gaegn.[83]
said, saegde.
bare, baer (verb).
bare, baer (adj.).

[83] Also pronounced e, *q. v.*

fair, faegr.
ware, waer.

N.E. a = O.E. e.

lair, leger.
Thames, Temese.

N.E. a = O.E. éa.

dare, déarr.
mare, méarh.

N.E. a = O.E. aē.

any, aēnig.

N.E. *a* is pronounced *ae* in 47 words (p. 81) with O.E. *a*, and in the following 59 cases :

N.E. a = O.E. ae.

ash, aesc.
aspen, aespen.
fathom, faedm.
gather, gaedrian.
hath (has, have), haefð.
wagon, waegn.
back, baec.
black, blaec.
sack, saec.
slack, slaec.
thatch, þaec.
adze, aedese.
had, haefde.
sad, saed.
shadow, scaed (also
    sceád).

glad, glaed.
adder, naedre.
bladder, blaedre.
at, aet.
hat, haett.
latter, laetre.
that, þaet.
sat, saet.
saturday, saeterdaeg.
vat, faet.
gnat, gnaett.
apple, aepl.
sap, saep.
nap, hnaeppian.

N.E. a = O.E. e.

thrash, þrescan.

N.E. a = O.E. éa.

arrow, éarwe.
harrow, héarwe.
marrow, méarg.
narrow, néarwe.
sparrow, spéarwa.
sallow, séalwe.
fallow, féalwe.
callow, céalwe.
mallow, méalwe.
gallows, géalga.
tallow, téalg.
salve, séalfjan.[84]
as, éalswā.
am, éam (or ēam).
axe, éax.

[84] See p. 86.

flax, fléax.
wax, wéax.
wax, wéaxan.
axle, éaxl.
shall, scéal.[35]

N.E. a = O.E. éo.
barrow, béorg.

[35] For the original sceál.

N.E. a = O.E. ā.
hallow, hālgian.

N.E. a = O.E. aē.
clad, claēded.
ladder, hlaēder.
clammy, claēmig.
spat, spaētte.
fat, faētt.

N.E. a = O.E. ēa.
chapman, cēapmann.
chaffer, cēapfaru.

N.E. a = O.E. ĕ.
bramble, brĕmel.

New English *a* is pronounced *a* in 4 words with O.E. *a*, and in 60 other cases. The lists will be found in III. 3, below.

New English *a* is pronounced *o* in 11 words (page 82) with *a* in O.E., and in the following 24 cases:

N.E. a = O.E. ae.
small, smael.
water, waeter.

N.E. a = O.E. éa.
all, éall.
fall, féall.
gall, géalla.
hall, héall.
stall, stéall.
wall, wéall.

halm, héalm.
chalk, céalc.
stalk, stéalc.
walk, wéalcan.
alderman, éaldormann.
swarm, swéarm.
warm, wéarm.
warn, wéarnian.
ward, wéard.
swarthy, from swéart.
saw, séah.

N.E. a = O.E. éo.
dwarf, dwéorg.

N.E. a = O.E. ā.
aught, āhte.
thaw, þāwan.

N.E. a = O.E. ēa.
raw, hrēaw.
straw, strēaw.

New English *a* is pronounced *ǫ* in 4 words (p. 82) with O.E. *a*, and the following 10 cases:

N.E. a = O.E. ae.
was, waes.
what, hwaet.
watch, waecce.

N.E. a = O.E. e.
swallow, swelgan.
wasp, wesp.

N.E. a = O.E. éa.
swallow, swéalwe.
wallow, wéalwian.
salt, séalt.
halt, héalt.
malt, méalt.

A very slight examination is enough to show that the O.E. vowel does not determine the pronunciation in these cases, and to suggest that here, as well as in the older period, the following consonants have been the determining element. I will show this only in the case of the sound *a*, with which we are particularly concerned.

3. The N.E. sound *a* represents O.E. vowels in 67 words, as follows:

N.E. a = O.E. a.
ass, asse.
castle, castel.
flask, flasce.
last, latost.

N.E. a = O.E. ae.
after, aefter.
chaff, caef (and ceáf).
craft, craeft.
shaft, scaeft.

bath, baeđ.
path, paeđ.
father, faeder.
rather, hraeđer.[36]

[36] Also pronounced *o*.

grass, graes.
glass, glaes.
brass, braes.
fast, faest.
mast, maest.
harvest, hacrfest.
arch, aerce.
cart, caert.
alms, aelmesse.

N.E. a = O.E. éa.

are, éaron.
arse, éars.
yarn, géarn.
arm, éarm.
harm, héarm.
ark, éarc.
stark, stéarc.
spark, spéarc.
mark, méarc.
park, péarruc.
hard, héard.
yard, géard.
art, éart.
tart, téart.

harp, héarpe.
sharp, scéarp.
half, héalf.
calf, céalf.
psalm, pséalm.
salve, séalfian.[87]
laughter, hléahtor.

N.E. a = O.E. e.

barley, from bere.
marsh, mersc.
barn, bere-aern.

N.E. a = O.E. éo.

tar, téoru.
star, stéorra.
far, féorr.
hart, héort.
heart, héorte.
carve, céorfan.
starve, stéorfan.
hearth, héord.[88]

[87] Also pronounced ae, p. 84.
[88] Also pronounced oe.

barm, béorm.
bark, béorcan.
dark, déorc.

N.E. a = O.E. íe.

mar, míerran.
yard, gíerd.

N.E. a = O.E. ā.

lark, lāwerce.
ask, āscian.
wrath, wrāð.

N.E. a = O.E. ǣ.

ant, ǣmette.
last, lǣst.
blast, blǣst.

N.E. a = O.E. ěo.

darling, děorling.
farthing, fěorðing.

N.E. a = O.E. īe.

hearken, hīercnian.

From this list it appears that this sound is represented by *a* in every case but three, where we have *ea;* the frequent cases of *ai* (pron. *e*), and the *au* in *laughter*, owe the second part of the digraph to the O.E. *g* and are to be reckoned as spellings with simple *a*.

A comparison of these words with the other words of O.E. origin in N.E. shows that the sound *a* is used:

i. For O.E. *a* regularly before *s* + consonant in monosyllables, but not in dissyllables (ashes), nor after *w* (wash).

ii. For O.E. *ae* regularly before a final fricative, fricative + consonant, *r* + consonant, silent *l* + nasal, but not before medial fricatives, except in *father* and *rather*, nor always after *w* (was). Exceptions are : *hath, ash*, and the unaccented -*ness* in compounds like *Shoebury-ness*.

iii. For O.E. *éa* before *r* + consonant and *l* + a labio-nasal or fricative, except *beard, earn, fern, halm*. It is used for *éa* also in *laughter* and *are*.

iv. For O.E. *e, ie, íe* before *r* + consonant exceptionally by analogy of the numerous words with O.E. *éa* before *r* + consonant.

v. For O.E. *éo* in monosyllables before *r* + consonant except *rl*,

rn, *rð*, which have *o*ᵉ (churl, learn, earth) and after *w* (swerve, work, dwarf, sword). The only exception is *birch*. *Hearth*, which should be pronounced *o*ᵉ, is occasionally pronounced *a*.

vi. For o.e. long vowels *ā*, *ǣ* (and *ie*, see iv.), only when these are treated according to the analogy of the corresponding short vowels. Thus *ask* falls into the analogy of o.e. words with *a* + *s* + consonant; *last* and *blast* follow *fast*, *mast*, and the like; *lark* follows *ark*, *spark*, and others with *ea*. *Wrath* owes its *a* sound to the *r* (cf. *wroth*, where the regular sound appears). *Ant* is an isolated contraction. *Darling* and *farthing* owe their sound to the *r*, but compare *forty* and *thirteen*, which are also dissyllables, with *ēo* in o.e.

It thus appears that this sound is due directly or indirectly to *r* in forty cases, to *l* in five cases, to fricatives in twenty-one cases, and once to a contraction.

But *r* not only produced the sound *a* from vowels; it assumed this vowel sound itself, in some parts of England and the United States, wherever it was final or medial before a consonant, though *r* and *rr* before vowels always preserved the consonant sound. This new vowel coalesces with the preceding vowels in such words as mar, star, yard, and is suffixed to the preceding vowel in such words as sheer (shia), hare (heᵉa), wire (waia), four (foᵉa), hir (hoᵉa), heard (hoᵉad). Sometimes the vocalized *r* forms a syllable, as, for instance, in shower (shaua), ever (eᵉva). When carelessly spoken this vocalized *r* has the diphthongal sound *oᵉa*, while in many parts of the United States and of England it has preserved its consonantal character.

4. The tendency of the language in the New English time is not merely a continuation and completion of the process we have already seen in the Ormulum. The tone-lowering had modified in m.e. almost all the classes of words in which it appears in n.e.; but the tone-raising which has affected so large a majority of the o.e. *a*-sounds in n.e. did not begin till much later, for there is no trace of it in Orm. The influence of the consonants is therefore in some cases earlier and more lasting than in others. Those consonants which have exercised the strongest and most prolonged power have usually affected the entire vowel system in a manner analogous to that in which they modify *a*. Thus *r* and *h* attract all vowels, light and dark, toward *a*; *r* + consonant and *l* + consonant usually have a lowering and blunting effect on preceding vowels; fricatives lower the tone of bright vowels and blunt the articulation

of the darker ones; mutes and nasals agree in their tendency to lower light vowels, to raise dark vowels, and to blunt the articulation of the extreme vowels at either end of the scale. The cause of the modification of the vowel sounds in these cases lies in the relation of the position of the vocal organs when sounding the vowel to that which they must assume to utter the consonant. In speaking rapidly, the former, which may vary, will adapt itself to the latter, which is relatively constant. The liquids and the aspirate *h* have a near relation to *a*, which accounts for their influence; less marked, but of the same nature, is the power of the fricatives; while the mutes, being further removed from relationship with the vowels, usually blunt the preceding vowels and assimilate them to the vowel articulation from which the mutes are least removed.

In O.E. the general lines of development are similar, except that epenthesis played a most important part, and that the influence of nasals was more distinctly lowering than now. The vowel of the syllable which follows the accent has also some times the power of assimilating the root-vowel, or at least of bringing it nearer to its own sound, which is allied to the form of epenthesis called umlaut. It is difficult to account for these O.E. elements in phonetic growth unless we take them to be a reflection in language of the restless spirit which sees that which is to come as though it were already present, and, while it utters one vowel, "o'erleaps itself and falls on t'other."

V. — *On the Use of the Aorist Participle in Greek.*

By T. D. SEYMOUR,

PROFESSOR OF GREEK IN YALE COLLEGE.

UNTIL the present century's historical and comparative study of the Greek language, and even nearly to the middle of this century, it was held that the aorist was the absolute preterit, the expression of a past which is conceived as a unit. The aorist in all its moods, optative, infinitive, and imperative as well as participle and indicative, was thought to refer properly to past time, as truly as does the perfect tense to a completed state or action. In the indicative the aorist was recognized in its full peculiarity.

Philological study of the elements of the verb has made it plain that the aorist indicative owes its reference to past time to the augment alone ; it has been shown that there is nothing in φυγεῖν or φυγών, in λιπεῖν or λιπών, rather than in φεύγειν or φεύγων, λείπειν or λείπων, which should represent an action as past. We should then expect the aorist participle to be distinguished from the present participle only as the aorist infinitive differs from the present infinitive ; *i. e.* to represent the action as momentary or indefinite, without reference to its continuance. We find in Homer distinct examples of the survival of this usage : *e. g.* —

A 592	πᾶν δ᾽ ἦμαρ φερόμην, ἅμα δ᾽ ἠελίῳ καταδύντι κάππεσον ἐν Λήμνῳ.
A 601	ὣς τότε μὲν πρόπαν ἦμαρ ἐς ἠέλιον καταδύντα δαίνυντ᾽.
Σ 210	ἅμα δ᾽ ἠελίῳ καταδύντι πυρσοί τε φλεγέθουσιν ἐπήτριμοι.
Ω 713	καί νύ κε δὴ πρόπαν ἦμαρ ἐς ἠέλιον καταδύντα Ἕκτορα δάκρυ χέοντες ὀδύροντο πρὸ πυλάων.
ρ 582	ἀλλά σε μεῖναι ἄνωγεν ἐς ἠέλιον καταδύντα.
α 23	Αἰθίοπας τοὶ διχθὰ δεδαίαται, ἔσχατοι ἀνδρῶν, οἱ μὲν δυσομένου Ὑπερίονος, οἱ δ᾽ ἀνιόντος.

In these verses the aorist participle seems to be used simply to mark the setting of the sun as a momentary action ; the darkness of evening appears to come upon us far more suddenly than the light of morning.

This achronic use of the participle is clear also when it is connected with a finite verb in the aorist. Some have thought that in such cases the participle was attracted to the tense of the verb ; but this attraction is not easily explained, least of all when the finite verb is not in the indicative ; as, Hom. σ 379 τῷ κε ἴδοις πρώτοισιν ἐνὶ προμάχοισι μιγέντα. In such cases it is clear that the action represented by the participle coincides in time with the action represented by the finite verb. A paper[1] read before this Association in 1877 called attention to the temporal coincidence of the aorist par-

---

[1] See "Proceedings" for that year, pp. 4, 5.

ticiple with the principal verb in sentences like Hom. θ 564 ἀλλὰ τόδ' ὥς ποτε πατρὸς ἐγὼ εἰπόντος ἄκουσα | Ναυσιθόου κτλ. The author[1] of that paper extends his observation not merely to Hom. ρ 492 τοῦ δ' ὡς οὖν ἤκουσε περίφρων Πηνελόπεια | βλημένου ἐν μεγάρῳ,[2] but also to expressions like Hom. ν 58 καί μιν φωνήσας ἔπεα πτερόεντα προσηύδα, where the principal verb is not in the aorist but in the imperfect. That such cases are frequent is undoubted, but there are many others where the aorist participle refers to an action which precedes that of the principal verb.

It is worth an effort to discover the principle which underlies these diversities. We must remember that the old view of the aorist infinitive also was that it properly referred to past time, while now we distinguish its meanings according to its correspondence to an indicative or an optative in the direct discourse. E.g. Plato, Gorgias 449 C καὶ γὰρ αὖ καὶ τοῦτο ἕν ἐστιν ὧν φημι, μηδένα ἂν ἐν βραχυτέροις ἐμοῦ τὰ αὐτὰ εἰπεῖν . . . καὶ οὐδενὸς φήσεις βραχυλογωτέρου ἀκοῦσαι. This is virtually equivalent to οὐδεὶς ἂν εἴποι κτλ. and οὐδενὸς βραχυλογωτέρου ἤκουσας. Thus in the original sentence ἀκοῦσαι naturally refers to past time; the tense is not changed in passing into the oratio obliqua. So e.g. in Isoc. IV 147 ὥσθ' ὁ βασιλεὺς . . . συλλαβεῖν ἐτόλμησεν, we might have had συνέλαβε or συλλαβεῖν τολμῆσαι.

Let us study the participles with the aid of this criterion of correspondence to the indicative or other moods respectively.

With regard to the first grand division, the attributive participles, little need be said. It will be admitted readily that as οὗτος (or ἐκεῖνος) ὁ λύσων is a rough equivalent of οὗτος (or ἐκεῖνος) ὃς λύσει, and ὁ λελυκώς to ὃς λέλυκε or ὃς λελύκει, so ὁ λύσας corresponds to ὃς ἔλυσε. A Greek would as soon think of confounding λέλυκε and ἔλυσε (and examples of this confusion are rare before the Alexandrian period), as of put-

---

[1] Professor Merriam; see his "Phaeacians of Homer," p. 247.
[2] Which can be understood 'when she was told that,' etc.; cf. Hom. N 521

οὐδ' ἄρα πώ τι πέπυστο βριήπυος ὄβριμος Ἄρης
υἷος ἑοῖο πεσόντος ἐνὶ κρατερῇ ὑσμίνῃ.

ting ὁ λελυκώς in place of ὁ λύσας. There is in this aorist participle a reference not merely to past time but to indefinite past time. The aoristic use is clearly developed. But the attributive participle may correspond to the optative or the subjunctive and then the reference to past time is lost. *Cf.* Hom. Γ 138 τῷ δέ κε νικήσαντι φίλη κεκλήσῃ ἄκοιτις with Γ 71 ὁππότερος δέ κε νικήσῃ κτλ. Ψ 656 τῷ δ' ἄρα νικηθέντι τίθει δέπας ἀμφικύπελλον. So Plato, Gorgias 458 A (ἐγώ εἰμι) τῶν ἡδέως μὲν ἂν ἐλεγχθέντων, εἴ τι μὴ ἀληθὲς λέγω, ἡδέως δ' ἂν ἐλεγξάντων, εἴ τίς τι μὴ ἀληθὲς λέγοι, *i. e.* τούτων οἳ ἐλεγχθεῖεν ἄν . . . ἐλέγξειαν ἄν. These cases of correspondence to any other mood than the indicative are comparatively infrequent.

Of the predicate participles, the so-called supplementary participles show most clearly their equivalence to a finite mood. Reference has been made already to passages like Hom. θ 564 ἀλλὰ τόδ' ὥς ποτε πατρὸς ἐγὼν εἰπόντος ἄκουσα | Ναυσιθόου. The direct statement might be : ὁ μὲν πατὴρ εἶπεν ἤκουσα δ' ἐγώ. If in N 521 οὐδ' ἄρα πώ τι πέπυστο . . . υἱος ἑοῖο πεσόντος, πέπυστο had been followed not by a participle but by a declarative clause (its grammatical equivalent), this clause would have taken its verb corresponding to πεσόντος in the aorist, *i. e.* ὅτι ἔπεσε υἱός. Compare P 641 ἐπεὶ οὔ μιν ὀίομαι οὐδὲ πεπύσθαι | λυγρῆς ἀγγελίης, ὅτι οἱ φίλος ὤλεθ' ἑταῖρος. The supplementary participle in general retains the full force of its tense after verbs of seeing, knowing, and the like. Isoc. V 62 αἰσθόμενος δ' Ἀγησίλαον . . . εἰς τὴν Ἀσίαν διαβεβηκότα καὶ πορθοῦντα κτλ., *i. e.* ὅτι διαβεβήκει καὶ ἐπόρθει. Pind. Isth. VII 29 ἴστω αὔξων, *i. e.* ὅτι αὔξει. Soph. Ant. 460 θανουμένη ἐξῄδη, 'I knew that I was to die.' So Aesch. Prom. 956 οὐκ ἐκ τῶνδ' ἐγώ | δισσοὺς τυράννους ἐκπεσόντας ᾐσθόμην ; *i. e.* ἐκ τῶνδε περγάμων δισσοὶ τύραννοι ἐξέπεσον. Hom. O 422 Ἕκτωρ δ' ὡς ἐνόησεν ἀνέψιον ὀφθαλμοῖσιν | ἐν κονίῃσι πεσόντα. Bacchylides fr. 6 ξανθότριχα μὲν Φερένικον . . . εἶδε νικάσαντα. Isoc. VI 83 συνειδότες Ἀθηναίοις ἐκλιπούσι τὴν πόλιν, *i. e.* ὅτι οἱ Ἀθηναῖοι τὴν πόλιν ἐξέλιπον. Isoc. VII 66 τίς οὐ μνημονεύει τὴν δημοκρατίαν οὕτω κοσμήσασαν τὴν πόλιν ; *i. e.* ὅτι ἡ δημοκρατία οὕτως ἐκόσμησε τὴν

πόλιν. So in φαίνεται σπουδάσας, the participle corresponds to the aorist indicative ; as in φαίνεται σπουδάσων it corresponds to σπουδάσει, and in φαίνεται ἐσπουδακώς to ἐσπούδακε or ἐσπουδάκει.   Xen. An. V 8: 14 κατέμαθον ἀναστὰς μόλις.

With λανθάνω and φθάνω, it is evident that the aorist participle corresponds to the same tense of the indicative. Homer P 1 οὐδ᾽ ἔλαθ᾽ Ἀτρέος υἱόν . . . . Πάτροκλος Τρώεσσι δαμεὶς ἐν δηιοτῆτι, i. e. (in the impersonal idiom which is more familiar to us) οὐκ ἔλαθ᾽ Ἀτρέος υἱὸν ὅτι Πάτροκλος ἐδάμη. Ω 331 τὼ δ᾽ οὐ λάθον εὐρύοπα Ζῆν | ἐς πεδίον προφανέντε. Π 314 ἔφθη ὀρεξάμενος, i. e. πρότερος ὀρέξατο.   Compare the converse constructions which show how the participle and finite verb could be interchanged.   E. g. Pind. Nem. I 37 ὡς οὐ λαθὼν χρυσόθρονον | Ἥραν κροκωτὸν σπάργανον ἐγκατέβα, instead of ἔλαθε Ἥραν ἐγκαταβάς.   Hom. τ 449 φθάμενος ἔλασεν σῦς, instead of ἔφθη ἐλάσας.   As ἔλαθεν ἀφικόμενος is equivalent to ἀφίκετο λάθρα, so ἔτυχεν ἰδών is equivalent to εἶδε τύχῃ, 'he saw by chance.'

But occasionally the aorist participle when supplementary represents not the indicative but some other mood. *E. g.* Plato, Gorgias 468 E οὐδὲ ζηλοῖς ὅταν ἴδῃς τινὰ ἢ ἀποκτείναντα ὃν ἔδοξεν αὐτῷ ἢ ἀφελόμενον χρήματα ἢ δήσαντα.   Here the thought might be expressed thus : οὐδὲ ζηλοῖς ὅταν τις ἢ ἀποκτείνῃ ὃν ἔδοξεν αὐτῷ ἢ ἀφέλῃ χρήματα ἢ δήσῃ.   Hom. Σ 189 μήτηρ δ᾽ οὔ με φίλη πρίν γ᾽ εἴα θωρήσσεσθαι | πρίν γ᾽ αὐτὴν ἐλθοῦσαν ἐν ὀφθαλμοῖσιν ἴδωμαι, i. e. πρίν γ᾽ αὐτὴ ἔλθῃ. Δ 99 αἴ κεν ἴδῃ Μενέλαον πυρῆς ἐπιβάντα, i. e. αἴ κε Μενέλαος πυρῆς ἐπιβῇ.   Arist. Frogs 637 χὡπότερόν γ᾽ ἂν νῷν ἴδῃς | κλαύσαντα πρότερον ἢ προτιμήσαντά τι κτλ., i. e. ὁπότερος ἂν νῷν κλαύσῃ πρότερος ἢ προτιμήσῃ τι.   Hom. σ 379 τῷ κε ἴδοις πρώτοισιν ἐνὶ προμάχοισι μιγέντα, i. e. τῷ κε μιγείην ἐνὶ προμάχοισιν.   α 163 εἰ κεῖνόν γε ἰδοίατο νοστήσαντα, i. e. εἰ κεῖνός γε νοστήσειε.   Pind. Isth. VIII 40 υἱὸν εἰσιδέτω θανόντ᾽ ἐν πολέμῳ, i. e. υἱὸς θανέτω ἐν πολέμῳ.   But, as in the case of the attributive participles, the number of instances in which the supplementary participle corresponds to any mood but the indicative are relatively few.

Of the principal divisions of participles but one remains to

be considered — the circumstantial participles, those which express a circumstance of time, means, cause, concession, or condition.

For the participles which express a circumstance of time, it is instructive to compare the parallel constructions in Homer, where we find more of the ço-ordinate construction than in later writers. Compare, *e. g.*, Hom. *Δ* 149 ὡς εἶδεν μέλαν αἷμα ῥίγησεν and *Δ* 217 ἐπεὶ ἴδεν ἕλκος (φάρμακα ἐπίπασσε) with *Δ* 279 ῥίγησέν τε ἰδών. Here ὡς εἶδεν and ἐπεὶ ἴδεν seem to be grammatically equivalent to the participle ἰδών of v. 279 which would have been expected in prose. I say they seem to be equivalent *grammatically*, for rhetorically and poetically they may not have produced the same effect, although it is probable that the poet was guided chiefly by the consideration of metrical convenience in the selection of one expression or the other. Homer often uses, and perhaps all Greek authors occasionally use, the finite verb where the participle is expected in Greek prose. So *A* 458 αὐτὰρ ἐπεί ῥ᾽ εὔξαντο καὶ οὐλοχύτας προβάλοντο is grammatically equivalent to εὐξά-μενοι καὶ προβαλόμενοι. *A* 467 αὐτὰρ ἐπεὶ παύσαντο πόνου τετύκοντό τε δαῖτα | δαίνυντο is equivalent to παυσάμενοι πόνου τετυκόμενοί τε δαῖτα ἐδαίνυντο. *E* 702 χάζονθ᾽, ὡς ἐπύθοντο = χάζοντο πυθόμενοι. *Z* 178 αὐτὰρ ἐπειδὴ σῆμα κακὸν παρεδέξατο γαμβροῦ = σῆμα παραδεξάμενος κτλ. ἐμεῦ ἀπομηνίσαντος, *I* 426, is taken up and repeated by ἐπεὶ χόλος ἔμπεσε θυμῷ.

But the aorist participle when circumstantial corresponds to the aorist indicative in other than relative clauses. Compare *A* 85 θαρσήσας μάλα εἰπέ with *A* 92 θάρσησε καὶ ηὔδα. It is a commonplace of our academies that the Greeks, famed as φιλομέτοχοι, employed a participle and a finite verb where we use two finite verbs. So *A* 9 βασιλῆι χολωθεὶς κτλ. is essentially equivalent to βασιλῆι ἐχολώθη καὶ νοῦσον ὦρσε, *A* 312 ἀναβάντες ἐπέπλεον to ἀνέβησαν καὶ ἐπέπλεον, *Γ* 191 Ὀδυσῆα ἰδὼν ἐρέεινε to εἶδε καὶ ἐρέεινε, *Z* 254 τίπτε λιπὼν εἰλήλουθας to τίπτε ἔλιπες καὶ εἰλήλουθας. The proper distinction between the aorist, imperfect, etc., is observed regularly. The virtual equivalence of the expressions with the

participle or finite verb is shown by verses like N 395 οὐδ'
ὅγ' ἐτόλμησεν δηΐων ὑπὸ χεῖρας ἀλύξας | ἂψ ἵππους στρέψαι,
where we should expect ὑπὸ χεῖρας ἀλύξαι . . . ἵππους
στρέψας. The number of examples coming under this gen-
eral head might be extended indefinitely. The connection
often marks distinctly the coincidence of time between the
acts expressed by the participle and finite verb. So in N 187
δούπησεν δὲ πεσών, ἀράβησε δὲ τεύχε' ἐπ' αὐτοῦ, the fall
and crash are simultaneous. Like this are N 530 βόμβησε
πεσοῦσα, O 647 τῇ ὅ γ' ἐνὶ βλαφθεὶς πέσεν ὕπτιος, ἀμφὶ δὲ
πήληξ | σμερδαλέον κονάβησε περὶ κροτάφοισι πεσόντος ('as
he fell'), N 409 καρφαλέον δέ οἱ ἀσπὶς ἐπιθρέξαντος ἄυσεν |
ἔγχεος, Π 276 ἀμφὶ δὲ νῆες | σμερδαλέον κονάβησαν ἀυσάντων
ὑπ' Ἀχαιῶν, M 337 οὔ πώς οἱ ἔην βωσάντι γεγωνεῖν, ζ 294
ὅσσον τε γέγωνε βοήσας. In δ 534, where Proteus tells of the
death of Agamemnon, κατέπεφνεν δειπνίσσας is explained by
the close of 535 ὥς τίς τε κατέκτανε βοῦν ἐπὶ φάτνῃ, which
shows that Agamemnon was murdered not after the feast but
at the feast, 'when he dined him.' In N 188 Ἕκτωρ δ'
ὡρμήθη . . . Αἴας δ' ὁρμηθέντος ὀρέξατο δουρὶ φαεινῷ | Ἕκτο-
ρος, the aorist participle distinctly takes up the aorist indica-
tive of the earlier part of the sentence; 'Hector rushed forward,
and *as he rushed* Ajax thrust at him his shining spear.' Simi-
lar although less distinct is Δ 423 Χερσιδάμαντα δ' ἔπειτα
καθ' ἵππων ἀΐξαντα . . . νύξεν, 'as he leaped from his chariot,'
not 'after he had leaped from his chariot.' With this last
example is to be compared Π 342 Μηριόνης δ' Ἀκάμαντα
κιχεὶς ποσὶ καρπαλίμοισι | νύξ' ἵππων ἐπιβησόμενον, where
ἐπιβησόμενον is probably an aorist form (corresponding to the
indicative ἐπεβήσετο) as is made probable by the following
words: ἤριπε δ' ἐξ ὀχέων.

In temporal clauses with the participle in the genitive abso-
lute, there is the same correspondence of tense between the
participle and the finite verb which it represents; *e. g.* Plu-
tarch, Pericles X Λακεδαιμονίων ἐμβαλόντων εἰς τὴν Τανα-
γρικὴν καὶ τῶν Ἀθηναίων εὐθὺς ὁρμησάντων ἐπ' αὐτούς, ὁ μὲν
Κίμων ἐλθὼν ἐκ τῆς φυγῆς ἔθετο μετὰ τῶν φυλετῶν εἰς λόχον
τὰ ὅπλα, *i. e.* ὡς οἱ Λακεδαιμόνιοι ἐνέβαλον κτλ.

Sometimes this aorist participle which is generally understood to express a circumstance of time, may correspond to the subjunctive, optative, or infinitive. Thus *B* 231 ὅν κεν ἐγὼ δήσας ἀγάγω, *i. e.* ὅν κεν ἐγὼ δήσω καὶ ἀγάγω. *E* 215 εἰ μὴ ἐγὼ τάδε τόξα φαεινῷ ἐν πυρὶ θείην | χερσὶ διακλάσσας, *i. e.* διακλάσσαιμι. *Ζ* 270 ἔρχεο ἀολλίσσασα γεραιάς, *i. e.* ἀόλλισσον καὶ ἔρχεο. *Γ* 428 ὡς ὤφελες αὐτόθ᾽ ὀλέσθαι |· ἀνδρὶ δαμεὶς κρατερῷ is equivalent to ὡς ὤφελες δαμῆναι κτλ. Lysias XXXI 13 οὐδ᾽ ἀπεχθήσεσθε οὐδενὶ τοῦτον ἀποδοκιμάσαντες, *i. e.* τοῦτον ἀποδοκιμάσαι ὑμῖν οὐδένα ἐχθρὸν ποιήσει.

It may be said that in many of the clauses quoted in the last two pages, the participle does express an action which is prior to that of the principal verb, although the position of the participle is after the principal verb in the sentence; and that for *Ζ* 270 ἔρχεο ἀολλίσσασα, if we employ the periphrasis suggested, we are obliged to reverse the order of verb and participle. To this may be replied, first, that in Homer the temporal participle is placed before its verb more frequently than after it, and often when the participle follows the verb it is placed at the beginning of a verse with the freshness of a new thought, as *A* 135 ἀλλ᾽ εἰ μὲν δώσουσι γέρας μεγάθυμοι Ἀχαιοί | ἄρσαντες κατὰ θυμόν. Secondly; the Greek idiom is notably fond of a kind of *hysteron proteron*, by which the act which is latest, or in any way most prominent, is placed first in the sentence. *E. g.* κ 451 ἀμφὶ δ᾽ ἄρα χλαίνας οὔλας βάλεν ἠδὲ χιτῶνας. *A* 251 οἵ οἱ πρόσθεν ἅμα τράφεν ἠδὲ γένοντο. τ 535 ἀλλ᾽ ἄγε μοι τὸν ὄνειρον ὑπόκριναι καὶ ἄκουσον. ε 264 εἵματά τ᾽ ἀμφιέσασα θυώδεα καὶ λούσασα.[1]

When the participle expresses the cause of an action, the connection distinctly implies that the action of the participle must precede that of the finite verb. . When the aorist participle denotes the means of an action it is usually associated with a finite verb in the aorist, and the connection clearly marks a coincidence of time. When the aorist participle expresses a condition it frequently represents the aorist subjunctive or optative; *e. g.* Κροῖσος Ἅλυν διαβὰς μεγάλην ἀρχὴν καταλύσει, *i. e.* ἐὰν Κροῖσος διαβῇ. Aeschylus, Prometheus

---

[1] See Classen, *Homerischer Sprachgebrauch,* 200 fg.

758 ἥδοι᾽ ἄν, οἶμαι, τήνδ᾽ ἰδοῦσα συμφοράν, *i. e.* εἰ ἴδοις κτλ.
Δ 539 ἔνθα κεν οὐκέτι ἔργον ἀνὴρ ὀνόσαιτο μετελθών.

It is often impossible to pronounce dogmatically as to the
form of the finite verb which the participle represents, but in
general its correspondence to some finite form of the same
tense is unquestioned.

·It has been shown that of the attributive, the supplemen-
tary, and the circumstantial participles, a large majority cor-
respond to the aorist indicative and refer distinctly to past
time. From this great preponderance of the participles which
refer to past time, it is easy to see that there would be an in-
creasing tendency to use the aorist participle as if by natural
right it referred to an act which preceded that of the principal
verb, whether the finite verb which the participle represented
would have been in the aorist, imperfect, or pluperfect indica-
tive. In general, however, this participle either retained its
original achronic force or represents the aorist indicative.

VI. — *On the Verbal Abstract Nouns in -σις in Thucydides.*

By E. G. SIHLER, Ph.D.,

NEW YORK CITY.

ONE of the most striking features of the style of Thucydides
is his tendency towards condensation ; and this is particularly
observable in his use of verbal nouns in -σις. Such nouns
occur, roughly speaking, 400 times. A few of them had
obtained general currency before the time of this historian, —
for example, ὄψις, τάξις, sundry compounds of -βασις, πρό-
φασις, etc. The great majority of them, however, are dis-
tinctly Thucydidean. Stahl's edition contains 471 pages.
Using this as a basis of calculation, these verbals occur, on
the average, once in 1⅙ pages of text. The average amount
of text in which one occurrence is found, is, for the several
books, as follows: for book i., 1⅔ pages ; ii., 1⅐ ; iii., ⅝ ; iv.,
1¼ ; v., 1⅓ ; vi., 1⅜ ; vii., ⅚ ; viii., 2. Comparing these with

the general average, $1\frac{1}{6}$, the diversities are, on the whole, too small to warrant any inferences as to the stylistic development of Thucydides, although the last book may possibly have been less thoroughly worked over into the characteristic diction of the author.

In respect of function and usage these nouns show differences sufficient to be made the basis of their classification. They are found:

1. As substantives, pure and simple; as subject, or object, or predicate-noun; and in prepositional phrases.

2. With a genitive objective attached. Here their verbal force is well maintained.

3. Introducing constructions such as would properly follow a verb.

4. In dependence upon a genitive subjective or possessive.

5. In periphrases with ποιεῖσθαι, γίγνεσθαι, ἔχειν, παρέχειν, εἶναι.

1. The purely substantive nouns in -σις. Of these many are employed by Thucydides in a purely concrete sense; *e. g.* οἴκησις, ii. 17, 1, ὀλίγοις μέν τισιν ὑπῆρχον οἰκήσεις; ἐνθύμησις, i. 132, 5, κατὰ ἐνθύμησίν τινα; ἀναχώρησις, 'place of refuge,' i. 90, 2, τὴν Πελοπόννησον ἱκανὴν εἶναι ἀναχώρησιν καὶ ἀφορμήν. ἐπίκλησις occurs as a synonym of ὄνομα i. 3, 2; καὶ πάνυ οὐδὲ εἶναι ἡ ἐπίκλησις αὕτη. This employment of the nouns in -σις in a concrete sense is particularly manifest where these nouns are coupled with concrete substantives proper, as the correlatives or equivalents of the latter; *e. g.* vi. 48, καὶ λιμένα καὶ ἐφόρμησιν τῇ στρατιᾷ ἔσεσθαι; iv. 126, 1, βραχεῖ ὑπομνήματι καὶ παραινέσει; viii. 1, 2, περιειστήκει φόβος καὶ κατάπληξις.

Double compound verbs are changed into verbal nouns as well as simple compounds, and illustrate very strikingly the energy of condensation attained by the writer, however harsh the effect may be. Thus ἀντεξόρμησις, ii. 91, 4, ἀξύμφορον δρῶντες πρὸς τὴν ἐξ ὀλίγου ἀντεξόρμησιν; προεκφόβησις, v. 11, 2, ἀπὸ τοιαύτης ξυντυχίας καὶ προεκφοβήσεως.

Plurals occur rarely, mostly in a distributive sense; *e. g.* i.

7

2, 1, φαίνεται μεταναστάσεις οὖσαι ; iii. 97, 3, καὶ ἦν ἐπὶ πολὺ
τοιαύτη ἡ μάχη, διώξεις τε καὶ ὑπαγωγαί; v. 66, 4, καὶ αἱ
παραγγέλσεις, ἤν τι βούλωνται, κατὰ τὰ αὐτὰ χωροῦσι κτλ.;
vi. 46, 3, καὶ ἰδίᾳ ξενίσεις ποιούμενοι . . . ἐσέφερον ἐς τὰς
ἑστιάσεις; vii. 12, 5, αἱ ἐπιχειρήσεις ἐπ᾽ ἐκείνοις (εἰσί). In one
case the articular infinitive is combined with the plural of the
abstract noun, vii. 70, 4, διὰ τὸ μὴ εἶναι τὰς ἀνακρούσεις. The
practical use of these nouns for the purpose of brachylogy is
very well illustrated in the combination with a complex attribu-
tive modifier ; thus ii. 18, 4, μάλιστα δὲ ἡ ἐν Οἰνόῃ ἐπίσχεσις
(διέβαλεν αὐτόν); ii. 91, 4, ἀξύμφορον δρῶντες πρὸς τὴν ἐξ
ὀλίγου ἀντεξόρμησιν ; iii. 102, 3, διὰ τὴν ἐκ τῆς Λευκάδος
ἀναχώρησιν ; cf. iv. 76, 1 ; vii. 31, 1, μετὰ τὴν ἐκ τῆς Λακωνικῆς
τείχισιν ; cf. vii. 44, 8 ; vii. 86, 5, διὰ τὴν πᾶσαν ἐς ἀρετὴν
νενομισμένην ἐπιτήδευσιν.

In a small number of cases nouns in -σις occur as object,
and present the full equivalent of what in more common con-
struction would be a complete sub-clause. Thus after verbs
of fearing, iii. 33, 1, δεδιὼς τὴν δίωξιν ; iii. 78, 1, οἱ Ἀθηναῖοι
φοβούμενοι τὴν περικύκλωσιν; or after verbs looking toward
the future, as σπένδεσθαι, iii. 24, 3, ἐσπένδοντο ἀναίρεσιν τοῖς
νεκροῖς ; or ψηφίζεσθαι, vii. 48, 1, ψηφιζομένους τὴν ἀνα-
χώρησιν.

2. The second prominent construction in which these nouns
are found is that with a genitive objective attached. As to
the proportion of occurrence, this is by far the most frequent
employment, comprising some 125 out of a total of 400,
or some 31 per cent of the whole. This class best exhibits
the general function of the formation, retaining on the one
hand almost all the active functions of the verb, and lending
itself on the other to all the modifiers which nouns may take.
Thus there may be expressed with greater precision the logi-
cal relation to the leading clause or governing word, be that
relation temporal, causal, or purely one of manner, or final, or
the equivalent of an indirect statement.

Thus we have the equivalent of *temporal clauses*, especially
through the vinculum of μετά ; as in i. 12, 3, μετὰ Ἰλίου
ἅλωσιν ; i. 18, 1, μετὰ τὴν τῶν τυράννων κατάλυσιν ἐκ τῆς

Ἑλλάδος ; vi. 4, 3, μετὰ Συρακουσῶν οἴκισιν ; vi. 5, 3, μετὰ Συρακουσῶν κτίσιν. Instrumental relation is almost always expressed by the dative, and not by means of διά with the genitive ; thus, i. 6, 3, χρυσῶν τεττίγων ἐνέρσει ; ii. 37, 3, τῶν τε ἀεὶ ἐν ἀρχῇ ὄντων ἀκροάσει καὶ τῶν νόμων ; ii. 94, 4, λιμένων τε κλήσει καὶ τῇ ἄλλῃ ἐπιμελείᾳ ; iii. 82, 1, τῇ τῶν ἐναντίων κακώ-σει καὶ σφίσιν αὐτοῖς ἐκ τοῦ αὐτοῦ προσποιήσει ; iii. 82, 3, ἐπιπύστει τῶν προγεγενημένων ; *ibidem*, τῶν ἐπιχειρήσεων περιτεχνήσει ; iii. 82, 8, ἀριστοκρατίας σώφρονος προτιμήσει ; vii. 48, 3, οὐκ ἄλλων ἐπιτιμήσει ; viii. 57, 1–2 ; μὴ τῆς τροφῆς ζητήσει πορθήσωσι τὴν γῆν.

Purpose and final relation are generally expressed by the vinculum of ἐπί with the dative ; iii. 10, 3, ξύμμαχοι μέντοι ἐγενόμεθα οὐκ ἐπὶ καταδουλώσει τῶν Ἑλλήνων Ἀθηναίοις, ἀλλ' ἐπ' ἐλευθερώσει ἀπὸ τοῦ Μήδου τοῖς Ἕλλησι ; similarly in v. 27, 2, ἐπὶ καταδουλώσει τῆς Πελοποννήσου ; vi. 82, 1, ἐπὶ τῆς πρότερον οὔσης ξυμμαχίας ἀνανεώσει ; vii. 66, 2, ἐπὶ τῆς Σικε-λίας καταδουλώσει. εἰς (ἐς) and πρός are used to designate result and specification.

Here, too, harshness and obscurity result from excessive accumulation ; thus several of these nouns are construed together, composite attributives are inserted, a few double compounds are met with, and in a few cases several of these features are combined. The difficulty of Thucydides, of which some critics make too much and some too little, may be ex-plained in good part from the employment of such construc-tions. For instance, in i. 25, 4, we have a double compound in -σις governing a genitive objective, and itself depending upon a genitive subjective, κατὰ τὴν τῶν Φαιάκων προενοίκησιν τῆς Κερκύρας; so i. 137, 4, γράψας τὴν ἐκ Σαλαμῖνος προάγγελσιν τῆς ἀναχωρήσεως καὶ τὴν τῶν γεφυρῶν ἣν ψευδῶς προσεποιήσατο τότε δι' αὐτὸν οὐ διάλυσιν. The harshness of Thucydides in such constructions has often been adverted to by critics from Dionysius onward. A similar case of accumulated modifiers is found in v. 35, 2, κατὰ τὴν τῶν χωρίων ἀλλήλοις οὐκ ἀπόδοσιν ; iv. 81, 2, τοῦ πολέμου ἀπὸ τῆς Πελοποννήσου λώφησιν ; v. 50, 4, κατὰ τὴν οὐκ ἐξουσίαν τῆς ἀγωνίσεως; iv. 126, 5, ἤ τε διὰ κενῆς ἐπανάσεισις τῶν ὅπλων ἔχει τινὰ δήλωσιν ἀπειλῆς. The

accumulation reaches a climax in v. 65, 2, δηλῶν τῆς ἐξ
Ἄργους ἐπαιτίου ἀναχωρήσεως τὴν παροῦσαν ἄκαιρον προθυ-
μίαν ἀνάληψιν βουλόμενον εἶναι; and again in v. 105, 1, οὐδὲν
γὰρ ἔξω τῆς ἀνθρωπείας τῶν μὲν ἐς τὸ θεῖον νομίσεως, τῶν δὲ ἐς
σφᾶς αὐτοὺς βουλήσεως δικαιοῦμεν ἢ πράσσομεν.   In vii. 34, 6
we have a rather harsh combination of genitive subjective
and objective, viz., διὰ τὴν τοῦ ἀνέμου ἄπωσιν αὐτῶν ἐς τὸ
πέλαγος. This excessive striving after condensation leads
Thucydides to attach a genitive objective directly to a
noun in -σις the etymology of which does not really permit
such directness, as in the phrase ἐν ἀποβάσει τῆς γῆς, i. 108,
5.   Here ἀπόβασις is not, what it often is, a concrete thing,
'landing-place,' but (as the context proves — against Liddell
and Scott) the abstract active noun in a modal sense, equiva-
lent to ἀποβαίνοντες ἐς τὴν γῆν.

  3. In the third class, a small one, we place those which
have other and most specifically verbal construction attached;
nouns which in such connection are treated as if they had all
the power and functions of verbs proper. Thus an indirect
question is attached to δήλωσις, i. 73, 3, μαρτυρίου καὶ δηλώ-
σεως (ἕνεκα) πρὸς οἵαν πόλιν — ὁ ἀγὼν καταστήσεται. In an-
other place we have a complete object-clause construed with
ἐνθύμησις, i. 132, 5, κατὰ ἐνθύμησίν τινα ὅτι οὐδείς πω τῶν πρὸ
ἑαυτοῦ ἀγγέλων πάλιν ἀφίκετο. At ii. 41, 3, we have ἀγανάκτη-
σις with the full construction of ἀγανακτεῖν, and κατάμεμψις
with that of καταμέμφεσθαι; μόνη οὔτε τῷ πολέμῳ ἐπελθόντι
ἀγανάκτησιν ἔχει ὑφ' οἵων κακοπαθεῖ οὔτε τῷ ὑπηκόῳ κατά-
μεμψιν ὡς οὐχ ὑπ' ἀξίων ἄρχεται. The *genitivus privandi* after
στερεῖν is maintained after στέρησις, ii. 63, 1, περὶ ἀρχῆς
στερήσεως. Twice do we meet the future infinitive after
δόκησις, which is thus differentiated from the more concrete
δόξα, ii. 84, 1, δόκησιν παρέχοντες αὐτίκα ἐμβαλεῖν; iv. 55, 2,
τῆς δοκήσεώς τι πράξειν. The dative of interest after κατα-
δουλοῦν is made to go with καταδούλωσις, vi. 76, 3, περὶ . . .
σφίσιν ἀλλὰ μὴ ἐκείνῳ καταδουλώσεως. The object-clause after
ἀνακαλεῖν is left unchanged after ἀνάκλησις, vii. 71, 3, πρὸς
ἀνάκλησιν θεῶν μὴ στερῆσαι σφᾶς τῆς σωτηρίας ἐτρέποντο.

  4. We now reach that construction of nouns in -σις where

the latter are dependent upon a genitive subjective or pos-
sessive. The proportion of occurrence of this construction is
much smaller than of that with the genitive objective. There
are found about 42 cases or 10 per cent of the whole, whereas
the cases of construction with the genitive objective consti-
tute some 132 or 33 per cent of all cases. In the construc-
tion with the genitive subjective or possessive the noun
naturally assumes more of a substantive character and be-
comes further removed from the signification of its verbal
original than in the object-construction. Moreover there
was probably some tacit feeling on the part of the writer
which led him to avoid confusion with that class. In this
employment, too, we may notice the freedom with which Thu-
cydides uses double compounds; thus in ii. 27, 2, εὐεργέται
ἦσαν ὑπὸ . . . τῶν Εἱλώτων τὴν ἐπανάστασιν; and in iv. 128,
4, ὀργιζόμενοι τῇ προαναχωρήσει τῶν Μακεδόνων. In one
case, quoted above, we find the harsh combination of genitive
subjective and objective, vii. 34. 6, διὰ τὴν τοῦ ἀνέμου ἄπωσιν
αὐτῶν ἐς τὸ πέλαγος. A number of nouns in this construc-
tion assume decidedly concrete sense: thus, ἀπόστασις, 're-
volt;' ποίησις, 'poetical works;' μέλλησις, 'delay;' ὅπλισις,
'equipment;' ὑπόσχεσις, 'promise;' ἀνάλωσις, 'expenditure;'
ἔκπληξις, 'fright;' ἀνάβασις, 'approach;' in concrete topo-
graphical sense, διάβασις, 'ford;' ἀπόβασις, 'landing-place.'
A few illustrations will suffice; i. 10, 3, τῇ Ὁμήρου ποιήσει;
vi. 31, 5, εἰ γάρ τις ἐλογίσατο τὴν — τῆς πόλεως ἀνάλωσιν;
vi. 78, 2, οὐκ ἀνθρωπίνης δυνάμεως βούλησιν ἐλπίζει; iv. 39, 3,
καὶ τοῦ Κλέωνος καίπερ μανιώδης οὖσα ἡ ὑπόσχεσις ἀπέβη;
i. 69, 4, τὴν αὔξησιν τῶν ἐχθρῶν καταλύοντες; iii. 78, 4, ἐς
ἡλίου δύσιν; vii. 42, 3, ἀποχρήσασθαι τῇ παρούσῃ τοῦ στρατεύ-
ματος ἐκπλήξει (ἔκπληξις occurs 8 times in Thucydides,
whereas the average occurrence of all other nouns in -σις is
twice each); vii. 42, 4, εἰ κρατήσειέ τις τῶν . . . Ἐπιπολῶν
τῆς ἀναβάσεως; vii. 74, 2, τῶν ῥείθρων καὶ ποταμῶν διαβάσεις
ἐφύλασσον.

5. The last construction to be considered is the periphras-
tic. Hitherto we have seen that these nouns serve as a
means of compact statement, that they are a contrivance for

condensation. Is the same thing to be said of the peri-phrastic construction? Is it not really an expansion? Could not Thucydides say ἀποβαίνειν or ἀποβῆναι instead of ἀπόβα-σιν ποιεῖσθαι? We must not forget that the striving after logical precision is as strong in Thucydides as that after con-densation, and that nouns admit of more concise modification than verbs. The force of habit, also, doubtless told on his phraseology; it became stereotyped in many modes of expres-sion. I have noticed some seventy instances of these peri-phrastic locutions. Thirty-two are made with ποιεῖσθαι. Once only — where the subject acts merely as the instru-ment — ποιεῖν is used, iv. 20, 2, τοῖς ἄλλοις Ἕλλησιν ἀνάπαυ-σιν κακῶν ποιήσωμεν. In point of frequency ποιεῖσθαι is followed by γίγνεσθαι; with this verb seventeen of these periphrases are made. The other periphrases are with ἔχειν, παρέχειν, εἶναι, καθιστάναι. The periphrasis with ποιεῖσθαι is especially used after military movements and political meas-ures; thus in iii. 2, 1, τὴν ἀπόστασιν ποιήσασθαι; iii. 53, 1, τὴν παράδοσιν τῆς πόλεως . . . ἐποιησάμεθα; iii. 66, 2, ξύμβα-σιν ποιησάμενοι; vi. 42, 1, ἐπεξέτασιν τοῦ στρατεύματος καὶ σύνταξιν . . . ἐποιήσαντο; vii. 17, 3, πέμψιν τῶν νεῶν ποιή-σασθαι; vii. 41, 1, τὴν κατάφευξιν ἐποιοῦντο ἐς τὸν ἑαυτῶν ὅρμον; viii. 3, 2, τὴν πρόσταξιν ταῖς πόλεσιν ἐποιοῦντο.

The periphrasis with γίγνεσθαι, though less frequent in occurrence, seems to be more varied in its composition. iii. 23, 5, ἐγένετο ἡ διάφευξις αὐτοῖς μᾶλλον διὰ τοῦ χειμῶνος τὸ μέγεθος; iii. 89, 3, παραπλησία γίγνεται ἐπίκλυσις; iv. 38, 3, γενομένων ἐπερωτήσεων δὶς ἢ τρίς; iv. 85, 1, ἡ μὲν ἔκπεμψίς μου ὑπὸ Λακεδαιμονίων γεγένηται; iv. 95, 1, δι᾽ ὀλίγου ἡ παραίνεσις γίγνεται; iv. 135, 1, ἡ πρόσθεσις ἐγένετο; vi. 103, 4, κύρωσις οὐδεμία ἐγίγνετο; vii. 4, 6, τῶν πληρωμά-των κάκωσις ἐγένετο; viii. 66, 2, οὔτε ζήτησις οὔτε δικαίωσις ἐγίγνετο.

The periphrasis with παρέχειν is mostly ἔκπληξις; thus, iv. 55, 3, ἔκπληξιν μεγίστην παρεῖχε; vi. 46, 4, μεγάλην τὴν ἔκπληξιν τοῖς Ἀθηναίοις παρεῖχε; vii. 70, 6, ἔκπληξίν τε ἅμα καὶ ἀποστέρησιν τῆς ἀκοῆς . . . παρέχειν. The same term occurs with καθιστάναι, and with παραστῆναι; vi. 36, 2, τὴν πόλιν

ἐς ἔκπληξιν καθιστάναι ; viii. 96, 1, τοῖς δ᾽ Ἀθηναίοις . . .
ἔκπληξις μεγίστη παρέστη.

The periphrasis with ἔχειν occurs in a passive sense in iv.
126, 1, εἰ μὴ ὑπώπτευον ὑμᾶς ἔκπληξιν ἔχειν ; but actively a
little below, iv. 126, 5, τὴν μέλλησιν ἔχουσι τοῖς ἀπείροις
φοβεράν ; *ibidem,* ἔχει δήλωσιν ἀπειλῆς ; vi. 41, 4, τὴν ἐξέτα-
σιν αὐτῶν ἡμεῖς ἕξομεν. The harshest and most abnormal
employment of ἔχειν is found in ii. 61, 2, τὸ μὲν λυποῦν ἔχει
ἤδη τὴν αἴσθησιν ἑκάστῳ. The tendency towards periphrasis
may be observed elsewhere in Thucydides, particularly with
nomina agentis in -της ; e. g. i. 35, 4, τῶνδε κωλυταί . . . γενή-
σεσθε ; i. 132, 5, μηνυτὴς γίγνεται. Cf. iii. 2, 3 ; iii. 23, 2 ; iii.
59, 2, ἱκέται γιγνόμεθα.

With reference to the use of these verbals, it may be of
interest to compare Thucydides with some of the most im-
portant writers of Greek prose who stood nearest to him.
These are Herodotus, Antiphon, and the author of περὶ
Ἀθηναίων πολιτείας as his predecessors, and Xenophon, as
his successor.

The eighth book of Herodotus is equivalent to about one
sixth of Thucydides. The occurrences of the -σις nouns
number 40, and are to those in an equal amount of Thu-
cydides as 3 to 5. But 15 are nouns long in vogue, with
established concrete meaning, such as στάσις, ὄψις, ἅλωσις,
σύνεσις, διάβασις, φύσις, πρόφασις, σκῆψις, τάξις, κατάβασις,
ἀνάβασις, and the like. The following are not found in Thu-
cydides : ἐξήλυσις, ἐπάγερσις, ἔλασις, ἐπαύρεσις, ὑπόφαυσις,
ἔκλειψις, ἄπιξις. Eight are cases with a genitive objective
attached. The most striking feature of Thucydidean usage
which is wanting in this portion of Herodotus, is the accumu-
lation and insertion of attributives and other modifiers.

As for Antiphon, the bulk of that author is equivalent to
one eighth of Thucydides, and a little more. We find some
thirty-eight cases, or about three quarters of the Thucydidean
average. The percentage of independent and original forma-
tions is much larger than in Herodotus ; thus we find πόσις,
'potatio,' φόνευσις, ἀπόφευξις, ἀποψήφισις, τίμησις, αἰτίασις,

ἀναίρεσις, ἴασις, διάγνωσις, and in iv. 22, a double compound, μετέκβασις. A case of accumulated construction reminding us greatly of Thucydides is found in iv. 95, τοῦ δὲ τούτοις πειθομένους ἐξεργάσασθαι ἃ οὗτοι βούλονται οὐκ ἐστιν ἴασις.

The pamphlet περὶ Ἀθηναίων πολιτείας is equivalent to nine pages of Stahl's Thucydides, which of course is too little to base any computation upon. Only four cases occur : κτῆσις, θέσις, τάξις, and πρόφασις. κτῆσις is used in concrete sense, i. 19, διὰ τὴν κτῆσιν, τὴν ἐν τοῖς ὑπερορίοις. θέσις and τάξις are construed with genitive objective :. iii. 3, περὶ νόμων θέσεως ; iii. 5, αἱ τάξεις τοῦ φόρου.

Of Xenophon I selected for comparison his continuation of Thucydides, viz. the first three books of the Hellenica, these being equal in bulk to one fifth of Thucydides. The result is quite significant. There are only some twenty-five occurrences, or considerably less than one third as many as Thucydides would have in that space. The variety is limited, and concrete nouns like πρόφασις, στάσις, πρᾶξις, κρίσις, φύσις make up most of the count. But a very small number of freer formations deserve mention, such as φοίτησις, i. 6, 7, ταῖς ἐπὶ τὰς θύρας φοιτήσεσιν. At iii. 5, 5, is a noteworthy case of accumulation : πάλαι ὀργιζόμενοι αὐτοῖς τῆς τε ἀντιλή-ψεως τῆς τοῦ Ἀπόλλωνος δεκάτης ἐν Δεκελείᾳ καὶ τοῦ ἐπὶ τὸν Πειραιᾶ μὴ ἐθελῆσαι ἀκολουθῆσαι.

APPENDIX.

MEMBERS IN ATTENDANCE AT THE THIRTEENTH ANNUAL SESSION.

Frederic D. Allen, Harvard University, Cambridge, Mass.
C. T. Beatty, High School, East Saginaw, Mich.
James S. Blackwell, University of Missouri, Columbia, Mo.
Fisk P. Brewer, Iowa College, Grinnell, Iowa.
Charles J. Buckingham, Poughkeepsie, N. Y.
Henry F. Burton, University of Rochester, N. Y.
Martin L. D'Ooge, Michigan University, Ann Arbor, Mich.
Henry Garst, Otterbein University, Westerville, Ohio.
Basil L. Gildersleeve, Johns Hopkins University, Baltimore, Md.
H. McL. Harding, Brooks Academy, Cleveland, Ohio.
Newton B. Hobart, Cleveland, Ohio.
John L. Johnson, University of Mississippi, Oxford, Miss.
Elisha Jones, Michigan University, Ann Arbor, Mich.
W. S. Kerruish, Cleveland, Ohio.
Charles R. Lanman, Harvard University, Cambridge, Mass.
Miss Harriet E. McKinstry, Lake Erie Female Sem., Painesville, Ohio.
Irving J. Manatt, Marietta, Ohio.
Francis A. March, Lafayette College, Easton, Pa.
J. O. Notestein, University of Wooster, Ohio.
Lewis R. Packard, Yale College, New Haven, Conn.
William R. Perkins, Cornell University, Ithaca, N. Y.
Samuel Porter, National Deaf-Mute College, Washington, D. C.
L. S. Potwin, Western Reserve College, Hudson, Ohio.
Thomas R. Price, University of Virginia, Va.
Charles W. Reid, Allegheny College, Meadville, Pa.
Lawrence Rust, Kenyon College, Gambier, Ohio.
Thomas D. Seymour, Yale College, New Haven, Conn.
Ernest G. Sihler, Classical School, New York, N. Y.
Edward Snyder, Illinois Industrial University, Champaign, Ill.
Charles W. Super, Ohio University, Athens, Ohio.
Zachary P. Taylor, Central High School, Cleveland, Ohio.
Calvin Thomas, Michigan University, Ann Arbor, Mich.
Crawford H. Toy, Harvard University, Cambridge, Mass.
Benjamin W. Wells, Johns Hopkins University, Baltimore, Md.
J. B. Weston, Antioch College, Yellow Springs, Ohio.
John Williams White, Harvard University, Cambridge, Mass.
William D. Whitney, Yale College, New Haven, Conn.

AMERICAN PHILOLOGICAL ASSOCIATION.

CLEVELAND, OHIO, Tuesday, July 12, 1881.

THE Thirteenth Annual Session was called to order at 3.30 P.M. in the Assembly Room of the Board of Education (Public Library Building, Euclid Avenue), by the President, Professor Lewis R. Packard of Yale College, New Haven, Conn.

The Secretary, Professor Charles R. Lanman of Harvard University, Cambridge, Mass., presented the following report of the Executive Committee :

a. The Committee had elected as members of the Association :

Benjamin W. Wells, Ph.D., Fellow of the Johns Hopkins University, Baltimore, Md.

George Bendelari, Instructor in Modern Languages, Harvard University, Cambridge, Mass.

Edward S. Sheldon, Tutor in German, Harvard University, Cambridge, Mass.

b. The Proceedings had been duly published. The Transactions were all in type and nearly ready for distribution.

c. The Committee had directed the Secretary to distribute thirty complete sets of the Transactions among the principal learned societies of Europe and Asia, and to send copies of the eleventh and twelfth volumes of the Transactions to the principal libraries of the United States, *gratis*, with a circular, offering to complete the set for twelve dollars (half the regular price).

The Secretary presented an invitation from the Cleveland Union Club, tendering to the members of the Association the freedom of the Club during their stay in the city.

The Treasurer, Mr. Charles J. Buckingham of Poughkeepsie, N. Y., presented his report, showing the receipts and expenditures of the year (see p. 32).

On motion, the Chair appointed Professor F. A. March and Professor T. D. Seymour a committee to audit the Treasurer's report.

As committee on the hours of meeting, the Chair appointed Professor C. H. Toy and Professor Lawrence Rust.

Professor John Williams White, of Harvard University, presented the following resolutions :

Whereas, Many colleges in the United States have in recent years conferred the degree of Doctor of Philosophy not by examination but *honoris causa*, be it

Resolved, first, That this Association deprecates the removal of this degree from the class to which it belongs (namely, B.D., LL.B., M.D., and Ph.D., — degrees conferred after examination), and its transfer to the class of honorary degrees.

Secondly, That a committee of three be appointed to present this resolution to the American Association for the Advancement of Science, and to request them to co-operate with this Association in addressing a memorial to the Boards of Trustees of all colleges in the United States empowered to confer degrees, stating the objections to conferring the degree of Doctor of Philosophy *honoris causa*, and praying them to discontinue the practice if it exists in the colleges under their control.

Professor William D. Whitney, of Yale College, moved that the resolutions be referred to the Executive Committee. The motion was carried.

Communications were then presented as follows :

1. On Homer and Strabo, by Dr. E. G. Sihler, of New York City.

The period of Greek literature beginning with the death of Alexander is interesting because of its analogies with our own time. Then as now there was the general tendency to erudition and encyclopedic accumulation, and the opportunity for scholars to apply historical, critical, and grammatical study to the great authors of the classic period. In the Augustan age this movement received a fresh impulse from the favorable political and social conditions attendant on general peace and easy communication. This was when Strabo flourished. His travels extended from Armenia to Etruria, and in the South to the boundaries of Abyssinia (Strabo, page 117, Casaubon). To his knowledge of mathematical and physical geography and political history he joined an accurate and comprehensive acquaintance with literature, and so has been able to fill his work with literary and biographical notes to accompany his account of the birthplaces of men of letters.

Of all authors, the one most persistently quoted by Strabo is Homer. Meineke's index shows seven hundred and twenty distinct references to Homer, while the much more reliable material of Herodotus is used but thirty times. Thus Homer is quoted as authority on Spain, on the peoples of the Danube (p. 295), on the historical geography of Elis (p. 337), etc.

"The Homeric Epos, and especially the Odyssey," says Kiepert (*Lehrbuch der alten Geographie*, p. 3), "shows the first traces of the transition to the Greeks of the half-fabulous stories of Phenician mariners about the lands they had visited." How now does it happen that Strabo, with his abundant equipment of learning, refers so constantly to his revered but untrustworthy Homer ?

This question Mr. Sihler attempted to answer by showing that among the numerous geographers who preceded Strabo, copious discussions of the Homeric geography had been usual. Strabo did not start them. Indeed, he himself tells us (p. 348, cf. p. 337) that he would not have given so much care to the examination of traditions if he had not received them and grown up with them from child-hood, and seen that they met with great acceptance among many of his prede-cessors and contemporaries. Strabo's personal knowledge often enabled him to state the present condition of things ; but the reputation of Homer would not allow Strabo's statements to pass without some critical comparison, or reconcile-ment in case of difference.

Eratosthenes (275-194 B.C.), the most important of Strabo's predecessors, denied to Homer all authority as a reliable source of information for history or geography. Strabo often finds occasion to enter into polemic with him ; and, in view of the learning and high standing of Eratosthenes, it was an essential point with Strabo to vindicate the disputed authority of the great poet. Successors of Eratosthenes had concerned themselves much with Homeric geography. Apollo-dorus wrote a voluminous commentary on the " Catalogue of Ships " (Iliad ii.) ; Demetrius of Skepsis treated fully the topography of the Troad ; Polybius, the historian, cited Homer, and argued the question whether the places of Odysseus's wanderings might be identified ; Posidonius devoted much space to the treatment of Homeric problems ; and Aristonicus, a contemporary of Strabo, wrote a work περὶ τῆς Μενελάου πλάνης, which Strabo himself made use of. Thus Homeric discussion had gone on from Eratosthenes's time to Strabo's, and Homer's fame had in no wise abated. No wonder, then, that Strabo should give so much space to Homeric subjects. Herein he reflects the studies of his forerunners.

This gives us an idea of the literary activity of the Alexandrian period. Polemic was no less common than with us ; but it was carried on differently. It was the criticism of predecessors by those that came after them, instead of the rapid exchange of views between contemporaries.

2. The Testimony of the Talmud respecting the ancient Pronun-ciation of certain Latin Letters, by Professor James S. Blackwell, of the University of Missouri, Columbia, Mo.

It is known from the Talmud that the Jews of the first centuries of our era gave great attention to orthoepy, — as appears, for example, in the ridicule of the Galilean provincialisms ; and that constant contact with the Romans afforded them good opportunities of learning the best Latin pronunciation, which, there-fore, we may suppose to be fairly represented by the transliterations of the Talmud. We consider here only two letters, the Roman *c* and *s*. The first of these is regularly transliterated in the Talmud by ק, rarely (and probably from carelessness of copyists) by כ (which rather represents Greek χ), and the second by ס and not by שׁ. Now ק is not our *k*, but a more guttural sound, and ס is harder than our *s* ; nor can we expect absolute accuracy in these representations. Yet the transliteration of the *c* by the ק seems to place the sound of the former as far as possible from a sibilant. So far as the testimony of the Talmud goes, it favors the hard sound for Latin *c*. Nevertheless it must be added, in respect to the general question of our present Latin pronunciation, that the impossibility

of recovering the precise sounds and restoring tone and accent, and the consideration of economy of time, make it wiser to use the English sounds of the Latin letters.

Professor Whitney criticised the conclusion of this paper. He advocated as near an approach to the ancient pronunciation as is possible.

3. The Home of the Primitive Semitic Race, by Professor Toy, of Harvard University.

Indications of the original dwelling-place of the Semites have been sought from four sources, national traditions, the grammar of the parent-language, its vocabulary, and early Asiatic history; but none of these furnish satisfactory data. 1. It is only among the Hebrews (and Assyrian-Babylonians) that traditions of national and racial origin are found, and the geographical statements in these are fluctuating and indecisive. The position of Eden and Ararat, if known, would not fix the Semitic home. The table of nations in Genesis x. gives the geographical distribution of the peoples speaking Semitic tongues, but not their original centre. The story of the dispersion locates the whole world at one time in Shinar or Babylonia, but does not state in what directions the various nations went from that point. It is impossible to gather anything definite from these data. 2. It has been assumed that the people whose grammar most nearly represents that of the parent-speech dwelt in the primitive home of the race, which has therefore been located in central Arabia. This assumption, however, is untenable. Retention of primitive linguistic forms is due not to the place of abode, but to freedom from influences that produce grammatical change, and such argument can lead to no results. 3. It is supposed that the physical features, climate, minerals, plants, animals, etc., of the cradle of the race may be determined from the vocabulary of the parent-tongue. In seeking for the primitive vocabulary, it is especially necessary to guard against reasoning from the absence of words, since many original words may have fallen out of the various dialects. Supposing the common vocabulary determined, this may fix a place where the race once dwelt, though great caution is necessary in drawing inferences; it does not follow, for example, that all minerals whose names occur in the primitive tongue are products of the soil, — they may be imports; nor can we in all cases conclude that the present condition of localities is the same as that of very ancient times. Different investigations of the vocabulary have assigned the primitive Semites to Babylonia and to the southeastern coast of Arabia, without arriving at data sufficient to decide between these two localities; and it is possible that other data may point to other localities. Further, if it is shown that a race once occupied a certain district, it is still possible that it may have come thither from some earlier home. 4. Controlling or guiding data are sought in supposed indications of the early Babylonian or Akkadian records. If the Semites dwelt all together in Babylonia, and were there the pupils of their predecessors the Akkadians, they ought all to show traces of Akkadian influence. But this is true of only a part of them, the northern branch, and the Sabeans. It would thence appear that they had separated before entering Babylonia. This early history is, however, still very obscure.

Remarks upon the paper were made by Professors Whitney and Toy.

The committee on the hours of meeting reported. It was arranged that the Association should hold sessions as follows: on Tuesday, at 8 P. M.; on Wednesday and Thursday, from 9 o'clock to 1, and from 4 o'clock to 6.

A recess was then taken until evening.

CLEVELAND, OHIO, Tuesday, July 12, 1881.

EVENING SESSION.

The Association met at 8 P. M.

The Annual Address was delivered by the President, Professor Lewis R. Packard, of Yale College.

4. The Morality and Religion of the Greeks.

After a few introductory remarks, in which among other things reference was made to the loss the Association has sustained in the death of Professor S. S. Haldeman, the discussion of the Morality and Religion of the Greeks was taken up in the form of answers to the following questions:

I. *What was the origin of the moral ideas of the Greeks?* Not the Olympian theology in the earliest form of it known to us, nor any religious ceremonies, nor the speculations of philosophers; nor yet, as Coulanges supposes, the worship of the dead and of fire. This is not primary enough, nor adequate in its range, to account for the result. If we go back to the Aryan ancestry of the Greeks, so far as we can infer their system of morals from the evidence of the Vedic hymns, we find it intimately connected with the religious system of the same hymns, and can hardly explain the origin of either unless by a method which applies as well to those of any people. We must, then, either lose our subject in the general one of the origin of the moral ideas of the race, or confess that we cannot find any other source for those of the Greeks than the earliest religious system of the Indo-European family.

II. *What was the history of Greek morality in the time known to us?* Did it make progress up or down in that time? The materials for this investigation, arranged in the order of their value, are (1) inscriptions and contemporary monumental records of all kinds; (2) institutions and customs made known to us in literature; (3) recorded incidents of private or public life in which a moral character can be clearly perceived; and (4) deliberate expressions of moral and religious feeling by poets and philosophers. Of this last source of information too much is usually made. It is of the smallest value in determining the moral ideas of the common people, because these writers are picked men, often out of harmony with the moral tone of the community, and because in their writings they are seen at their own highest moral pitch. If we look at a part of the time known to us, between the Homeric and the Periklean period, we may justly say that there is evidence of an improvement in morals. Three par-

ticulars are mentioned by Grote in which this is seen, — the position of orphans, the way of dealing with homicide, and the treatment of enemies slain in war. The same progress may also be seen in outward respect for family ties, in the rights of property, in business transactions, and in courage as shown in war. All these are matters which show an increased sense of society as having claims on the individual and doing work for him. On the other hand, in some respects there is a decline in moral tone. On the position of women and of slaves, the progress of civilization seems to have pressed to their disadvantage. The ideal of individual character seems to be higher in the Homeric poems than later; but this may be due largely to the freedom of the poet in shaping his ideal; and if we combine the Hesiodic poems with the Homeric in forming our conception of the heroic age, the difference between it and the historic age becomes less. Some of the proximate causes of this improvement in morals may be easily seen; but it is not so easy to say what was the ultimate cause which made the movement to be for a time upward and not downward. It seems there was something in the stock and surroundings of the Greeks which enabled them to build up a system of usages and principles which supported and shaped, without hampering, the character of the individual.

III. *How good was their morality at its best?* Two cautions are to be observed here. (1) We must not think of the Greeks as precisely like ourselves, and to be judged by the same standard. (2) We must not think of them as wholly different from ourselves. In many respects their civilization was strikingly like ours. In theory their moral system was much the same. Truth, courage, patriotism, and all such virtues are praised and the opposite vices condemned through all their literature. In other respects, such as bodily purity, the permission of revenge, the inculcation of charity and the passive virtues, there was a difference. As to the degree to which their theories were realized in practice as compared with the same thing in modern times, we need more thorough study of the facts before we can venture an opinion.

IV. *What was the influence of the Greek religion upon morality?* Here there is great difference of opinion. In some things we see direct influence of religion to enforce duties of universal morality, — for instance, in the sanctity of oaths, the condemnation of suicide, the dread of the sin of ὕβρις, the duties of hospitality, and pity for suppliants; but it appears that the two ideas "We must do what is right" and "Let us worship and obey the gods" were not by the mass of men consciously and fully recognized as connected, any more than they are always in modern times. There was something, too, in their religion which made the separation of these ideas easy and natural.

V. *What was the character of the religion of the Greeks?* Many unwarranted assertions are made on this subject. It is difficult to estimate fairly the character of any religion, but especially so in this case; for the Greek religion had no accepted standards, was always admitting new elements, had grown out of an unrecorded past, and embraced great varieties of belief and feeling. It needs to be studied historically, for it was continually changing. We must go back as far as we can, and this brings us again to the Vedic hymns. We find there a worship of the powers of earth and air, with constant personification but imperfect anthropomorphism, and a high but wavering idea of the divine character. It is probable that the early Greeks inherited some form of this system, though exactly what form we cannot ascertain. The Sanskrit names *Varuna* and *Dyaus*

are plainly the same with the Greek Οὐρανός and Ζεύς. To this system the Greeks made additions, — some derived from foreign lands, as Dionysos ; some of native origin, as Peitho, Metis, etc. A frequent cause of the multiplication of deities was the separation of the people into small communities, and their subsequent combination into larger aggregates. Then also, in the exercise of both logic and imagination, the Greeks went further than most peoples in the process of anthropomorphism, to which their skill in the plastic and pictorial arts gave powerful assistance. As the social status of the people improved, their ideas of the gods were correspondingly elevated. To this the oracle at Delphi and the tragic poets of Athens contributed their influence. Especially the Apolline doctrine of atonement is the highest point of practical religion attained by the Greeks. After the time of Plato came a decline, but not so sudden and complete a decline as we are apt to suppose. This bare outline, if correct, shows clearly that many current statements about the Greek religion are untenable. It shows that it was not a worship of beauty, nor a worship of nature, nor a simple acting out of human nature unhampered by sense of sin or dread of the future, nor a system of profound truths disguised as fables. From some cause, — we cannot tell certainly what, but perhaps the need of man for some object of worship above him, — the ancestors of the Greeks were led to a system of worship of the powers of nature. This system the tribes that came to Greece brought with them, and in course of time it became localized and humanized and systematized. It was also enlarged on Greek soil by the admission of new deities, both native and foreign, and a theory was formed of a close association of the gods with men. But all along during the time known to us, the conception of these gods was apparently enough above the moral standard of the average man to exert a control over him and lift him up to a higher level. So it was manifestly in such cases as those of Aeschylos and Plato, who themselves did much to raise the ideas of other men. Thus we see how the religion of the Greeks was elevated by the improvement of the moral character of the people, and how at the same time it helped to elevate the character of the people. The apparent consecration of vice in the worship of Dionysos and Aphrodite needs explanation here. Both these worships were apparently introduced from foreign lands ; and in the case of both there is evidence of a time when sobriety and chastity were required of the worshippers. The gross indulgences which became associated with them were not the legitimate product of a distorted idea of religion, but the abuse of a natural and right idea. On the whole, the religion of the Greeks, though when compared with some others it appears wavering in its conception of the divine nature and feeble in direct moral influence, was yet worthy of the name of a religion ; that is, it was a system of belief as to the relation of man to the divine being, which influenced him, in his conduct, towards reverence, integrity, temperance, and good-will to his fellow-men.

The Association adjourned to 9 o'clock, Wednesday morning.

CLEVELAND, OHIO, Wednesday, July 13, 1881.

MORNING SESSION.

The Association came to order at 9.30 A. M. The Secretary read the minutes of Tuesday's sessions, and they were approved. The reading of communications was then resumed.

5. The History of the *a*-vowel from Old Germanic to Modern English, by Dr. Benjamin W. Wells, of the Johns Hopkins University, Baltimore.

The paper showed both the origin of the *a*-vowel, and its development at four stages of its history, — the Old Germanic, the Old English, the Middle English, and the New English periods.

The Old Germanic *a* was the product of two sounds, represented in Greek by *a* and *o*, and developed in Old English by successive, though often overlapping, changes.

First, the sound was modified from bright to dark *a*, a change found in Old English only before single consonants followed by the dark vowels *a, o, u,* and before nasals. Examples are : snaca, atol, dagum, mann, nam. After nasals, and occasionally elsewhere, we may find *o* for *a* : thus monn, nom, rodor, nosu; other vacillations or irregularities are quite uncommon.

This was followed by the lengthening of final *a*, so *hwā.*

Next, in all cases except those already mentioned, *a* was raised in tone to *æ*. This change was not permanent before *h*, nor before *h, l,* or *r*, + consonant. Examples are fæd, dæg, fæder, æsc. Irregularities in the use of *æ* are rare.

Breaking involves tone-raising, and was perhaps contemporary with it. This changed *a* to *éa* before *h*, and before *h, l,* and *r*, + consonant, and sometimes before a single consonant followed by *o* or *u*. Its cause is the epenthesis of an *u*-sound, either present in the following syllable or produced by svarabhakti from *r, l,* or *h*. The series of sounds was either *a, a*ᵘ, *aeᵒ, éa,* or *a, ae, aeᵘ, aeᵒ, éa.* Examples are : béadu, genéah, méaht, wéard, éald. Occasionally we find *éo,* for instance réord, and sometimes an *i* before *ht*, so mihte. Before *w* the breaking appears as *éaw*, for old Germanic *aw* became *auw*, which is *éaw* in Old English. Instances are : bréaw, céaw, héawan, féawe. Occasionally we find *éo* ; so éowe. Contraction of *an* before a fricative or *h* to *ō*, was universal. So gōs, ōðer, brōhte. When *ah (ag)* was followed by a vowel it became *éa* ; so sléan, Gothic slahan. The same is true of *a* before nasals and liquids ; so bēam, Gothic bagms.

Umlaut or *i*-epenthesis changes *a, o,* or *æ* to *e* ; so menn, net, gest. It changes *éa* to *íe* ; so íeldra : and *éa* to *íe*; so híege. It changes *ō* to *é* ; so ēst, tēd.

A palatal pronunciation of *g, c, sc,* or *sl* caused a semi-vocalic sound, like that sometimes heard in sky (skyai), to enter between them and following vowels. This was indicated in Old English by the sign *eá* for *a* and *æ*; *éo* for *o*; *ié* for *e*; *eā* for *ā*. It is seldom used regularly. Examples are : sceámu and sceómu, sceá-can, geóng, sciéppan, geā.

This was the last modification of Old Germanic *a* in Old English. Old English *a* always corresponds to Old Germanic *a.*

In the Ormulum, the earliest of the larger Middle English documents, all Old English *a*'s are retained, and many new ones caused by tone-sinking from Old English *ea, æ,* and other sounds.

In New English the Old English *a* is almost always spelled *a,* but it has six pronunciations. Before all single nasals, liquids, mutes, and fricatives except *r,* it is pronounced *e* : for example, lane, tame, ape, late, wade, rake, bathe, behave. Before *r,* it is pronounced *eᵃ*: so hare. Before nasals + syllable or + consonant, it is pronounced *æ* : thus ganet, rank, lamb. Before *s* + consonant, it appears as *a* : so ass, flask. Before an absorbed *w, f,* or *g,* the sound is *oᵃ* : so awl, hawk, gnaw. A preceding *w* may modify these sounds to a partially articulated *o,* as in swan, wander, wash.

The New English letter *a* is frequently used for Old English *a, ae,* and *éa,* and less commonly for many other Old English vowels. The sound *a* is the regular representative of Old English *éa, éo,* and *ae,* before *r* + consonant ; and of *éa,* and *ae,* before silent *l* followed by *m, f,* or *v.* Examples are : hard, cart, starve, half, salve, alms. This sound is the regular representative of Old English *æ* before fricatives; so path, grass, staff. It is the regular sound for Old English *a* before *s* + consonant ; so ass, flask. Elsewhere the use of the sound *a* is uncommon, and subject to special conditions.

Full word-lists and details will appear in the Transactions.

6. **Comparison of a few Versions in regard to the Precious Stones of the Jewish High-priest's Breastplate, Exodus, xxviii. 17-20, by Professor James S. Blackwell.**

In order to see whether the character of the precious stones in this passage could be determined with any certainty, I consulted the following versions : the targums of Onkelos and Palestine (with that of Jerusalem), Peshito Syriac, Septuagint, Vulgate, Armenian, modern Arabic by Smith and Van Dyck, and other modern versions in English, German, Dutch, Danish, Swedish, Polish, Bohemian, Hungarian, Irish, Welsh, French, Italian, Spanish, Portuguese, and Hebrew (some of these latter being the authorized standards in their respective countries, and others the productions of evangelists), and the mineralogical works of Nicol, Phillips, Feuchtwanger, Cleaveland, Jameson, and Dana. The result is not very satisfactory. In the first row the first stone (אֹדֶם) I hold to be carnelian after the Chaldee *achmar* and *akik* (so the carnelian is called in Yemen; see Niebuhr, Reisebeschreibung, p. 142). The second (פִּטְדָה), commonly taken as topaz, is doubtful. For the third (בָּרְקַת), I suggest thunderstone (from the stem בְּרַק 'to lighten'), which may have been so called from its supposed celestial origin, or its talismanic power in protecting from lightning. In the second row the first and third stones (נֹפֶךְ and יַהֲלֹם) are altogether doubtful ; the second (סַפִּיר) is generally agreed to be sapphire. In the third row the first stone (לֶשֶׁם) is indeterminable ; the second (שְׁבוֹ) is doubtfully rendered agate ; and the third (אַחְלָמָה) almost universally given as amethyst. In the fourth row the first name is variously translated, — it is the doubtful tartessus (תַּרְשִׁישׁ), — and the third (יָשְׁפֵה) is usually taken to be jasper. Thus, of these eleven, only two can be said to be known with any certainty.

In respect to the second stone (שֹׁהַם) of the fourth row, rendered onyx in the English version, I would hazard the conjecture that it is jade. From the Hebrew

root, as preserved in the Arabic conjugates, we may infer that the *shoham* had the following characteristics: It was green, pale, or leek-colored, translucent, and had splinters, or arrow-shapes, on the fresh surface of fracture. The *burtl*, which is the Chaldee equivalent of the Hebrew *shoham*, was sometimes strung on strings and girt about the heads of pregnant women, and was probably the אבן תקומה, or stone of resurrection, mentioned in the Talmud (*Shab.* 66: 2) as being worn even on the Sabbath, that it might prevent miscarriage. The coin ornaments for hair decoration, worn by Syrian women at present, may be a survival of the ancient custom without its ancient significance; or probably its significance remains, and, from the seclusion of Eastern women, and the indisposition of Eastern men to speak of their women, it has escaped the knowledge of travellers. In connection with this it is interesting to note that the peasants of Germany hold the jade celts as having a mysterious power in assisting the birth of children. The jade is also at present used in India, being formed into chains and small plates, and worn as an amulet attached to the neck (*Cleaveland's Mineralogy*, p. 358). The jade has all the known characters and uses of the *shoham* or *burtl*, and I know of no other stone that has them. It is pale or leek-green; it is translucent, and occasionally partly transparent; it is characterized by white-colored splinters (*Jameson's Mineralogy*, vol. ii. p. 290); is capable of being polished (*Cleaveland, l. c.*, p. 337); is susceptible of being cut into any form (*Ure's Dict. of Arts*, etc., vol. ii. p. 769); and was and is used as an amulet. It is hard enough to scratch glass (*Feuchtwanger, l. c.*, p. 361), and was doubtless the stone used for incision in embalming, and in circumcision, whence it became venerable and sacred. It may be in connection with this old employment that it has the name of *Egyptian Stone* (Pietra d' Egitto) among lapidaries. Jameson (*l. c.*, p. 290) says it is the ὄμφαξ of Theophrastus, which was engraved and used for seals, its impression probably giving a sacred and binding force to contracts (p. 231). That jade was anciently engraved is shown by the remarkable celt brought from Egypt and exhibited in England before the Archæological Institute in 1868. On both faces of the celt are Gnostic inscriptions in Greek, arranged on one face *in the form of a wreath*. "It was doubtless regarded," says Evans, in his account of it (*l. c.*, p. 55), "as possessed of some mystic power." The wreath-shape recalls the wreaths of *burtl* worn on the heads of Jewish matrons.

A wider search of Jewish records than I have been able to make may throw some additional light upon this obscure subject. Jade seems to be found native only in Eastern Turkistan, in the Himalaya Mountains (*Phillips's Mineralogy*), and in New Zealand; but it may have been carried westward by commerce or by migrations.

The Secretary read a letter, the substance of which is here given, from Dr. Isaac H. Hall, of Philadelphia, Pa.

I have paid no little attention, especially while in the East, to the subject of the precious stones of Scripture, and think the (American) Arabic Bible incomparably the best version of every one of the texts concerning them. Excepting Genesis and Exodus, that Arabic Bible-translation is the work of Dr. Van Dyck. I once asked him if he thought he was much nearer the truth in these matters than the recent commentators. He said that some doubts would probably always be unresolved; but that he had made some improvements which the Occidentals gen-

erally could not well understand. He was familiar with the ancient versions, but he had derived a great deal of help from various Oriental books, and had incorporated the results obtained from them into his Bible. He had gathered all the works he could get on the subject, both printed and manuscript, chiefly the latter, from Egypt to Asia Minor, and from the Mediterranean to Persia, and even further east. The general credit for the Arabic Bible belongs to Dr. Van Dyck; but for Exodus, where many names for precious stones occur, Dr. Eli Smith, who translated that book, must have equal credit with Dr. Van Dyck.

The Arabic lexicons do not help very much to an understanding of the terms employed in this translation, unless one has had some practice in the Arabic technical literature. If a man like Dozy, of Leyden, should get up a lexicon of the Arabic precious stones, it might be very useful. I imagine that no great aid to an interpretation is to be had from the versions, except the Septuagint and Peshito Syriac, and their defects are known in this matter. The very modern versions ought to be better, but I think that some of the better modern commentators are better than the versions, excepting the Arabic Bible.

7. On Mixture in Language, by Professor W. D. Whitney.

Professor Müller, in the first series of his Lectures on Language, lays it down as an "axiom" that a mixed language is an impossibility. By a mixed language, however, he does not mean one with mixed vocabulary, since mixture of this kind is well-nigh or quite universal; he holds, rather, that languages, "though mixed in their dictionary, can never be mixed in their grammar;" and by "grammar," as thus used, he means only the inflectional system, of declension and conjugation. Müller's doctrine accordingly may be thus expressed: 1. There is a part of a language, namely its inflectional system, which appears to be inaccessible to mixture; 2. in virtue of this, a mixed language is an impossibility; 3. hence, the unmixableness of language is an axiom of linguistic science. On the other hand, Professor Lepsius, in his Nubian Grammar (Introduction, p. lxxxv.), says: "It is at present an assumption usually made, that the vocabulary of one language may indeed to a great extent be transferred to another, but not its grammatical forms and their use. The linguistic history of Africa . . . shows this to be a prejudice." Such a sharp contrast of views seems to make it desirable to submit the subject to a new and careful consideration. This was attempted in Professor Whitney's paper, which reached the following principal conclusions:

There is nothing in the least axiomatic about the unmixableness of a language, or of any part of it; so far as properly held, this doctrine is only an induction from the facts of language-mixture, as observed by us in a certain number of cases; and such cases, though tolerably numerous and varied, are far from representing all the possible circumstances of mixture; nor has the mode of working of the forces concerned been clearly enough demonstrated to give the principle any other than an empiric character, applicable to cases analogous with those already observed. Lepsius, then, although not justified in calling it an "assumption" and "prejudice," may prove to be in the right in claiming that it should not be brought up in bar of his theory as to the relationships of African languages. When the speakers of two diverse tongues are brought into contact or commingled with one another, the great possible variety of linguistic results

may be rudely classified under three heads: 1. Each tongue maintains itself nearly unchanged, and the community, or a part of it, becomes bilingual, as at present in the border-lands of Arabic and Turkish and Iranian speech. 2. One tongue, remaining almost unmixed, crowds the other out of existence, as in the Latinized countries of southern Europe. 3. A notably mixed tongue arises, like the English. And where this last is the result, it appears everywhere that the borrowing language takes in the material of the other as crude material, and proceeds to use it according to the rules of its own grammar. It does not by a first process import the structure of the other language. So far as this goes, Müller's dogma, though no axiom, has a certain truth. But the material thus borrowed may, by a secondary process, work itself into any part of the structure of the borrowing language that is still in a formative, growing condition; and in this way every part of the latter is capable of becoming mixed. Thus, in English, such pairs as *pure* and *purity* being numerously imported, they come to be regarded in the same light as *good* and *goodness;* and the foreign *ity* is then used, like the native *ness*, and for the same reason, in making new derivatives. And this and its like has gone on upon such a scale in English that, since the apparatus of derivation is just as much a part of grammatical structure as is that of inflection, English cannot justly be declared unmixed in its grammar; so that the "axiom" is not even strictly true as a fact. It is conceivable, moreover, that cases enough like *phenomenon* and *phenomena*, and *stratum* and *strata* should be imported to introduce a foreign mode of plural-making. And such numeral words as *second*, and such indefinite pronouns as *one* (in *one says*, etc.), and such frequent and indispensable parts of the apparatus of sentence-making as the adverb-preposition *around* and the conjunction *because*, further show how deeply, by the ordinary processes of linguistic growth, elements of foreign origin can be brought into the formal parts of a language.

It seems, then, that the special conditions of each separate case of mixture have to be carefully considered in determining the possible effects of mixture: and especially, the condition of a borrowing tongue in respect to its capacity — that is, its habits — of growth. What is most to be avoided is the assumption, which many are ready to make, that when two languages are brought face to face, one of them notices and is inclined to imitate the habits of the other.

8. On the Language of the Isle of Man, by Mr. W. S. Kerruish, of Cleveland, Ohio.

Mr. Kerruish, to whom the Manx Gaelic was a vernacular, explained the divisions of the Keltic family, the place of the Manx in the Gadhelic division (beside the Scotch Gaelic and the Irish), and its diversity from the languages of the other division, the Kymric (including Welsh, Breton, Cornish, etc.). The paper discussed Manx orthography and phonetics, initial inflection of nouns, and the conjugation of verbs. It also gave some specimens of Manx poetry.

A recess was taken until afternoon.

CLEVELAND, OHIO, Wednesday, July 13, 1881.

AFTERNOON SESSION.

The Association was called to order by the President, Professor Packard, at 4.15 P. M.

The Auditing Committee reported that the accounts of the Treasurer had been compared with the vouchers and found correct. The report was accepted.

The Secretary, Professor Lanman, made a report of further business transacted by the Executive Committee. [Cf. page 3.]

d. It had been voted to report to the Association for action at the next annual meeting (see page 40 — Article VI. of the Constitution), an amendment to the Constitution, proposed by Professor T. D. Seymour, of Yale College, according to which the first clause of Section 2 of Article IV. shall read as follows :

> 2. There shall be an annual fee of three dollars [*instead of* five, *as now,*] from each member.

e. It had been voted to lower the price of *complete sets* of the Transactions from two dollars a volume to one dollar a volume.

f. The following new members had been elected :

Mr. W. S. Kerruish, of Cleveland, O.
J. O. Notestein, Professor of Latin, University of Wooster, O.
Calvin Thomas, Assistant Professor of Sanskrit, Michigan University, Ann Arbor, Mich.
Zachary P. Taylor, Principal of the Central High School, Cleveland, O.
Elisha Jones, Assistant Professor of Latin, Michigan University.
W. R. Perkins, Assistant Professor of Latin and Greek, Cornell University, Ithaca, N. Y.
Charles W. Super, Professor of Greek, Ohio University, Athens, O.
Newton B. Hobart, Principal of Preparatory School of Western Reserve College, Hudson, O.
Charles W. Reid, Professor of Greek, Allegheny College, Meadville, Pa.
C. T. Beatty, Principal of High School, East Saginaw, Mich.
H. McL. Harding, Principal of Brooks Academy, Cleveland, O.
Henry Garst, Professor of Latin, Otterbein University, Westerville, O.
L. S. Potwin, Professor of Latin, Western Reserve College.
Miss Harriet E. McKinstry, Instructor in Latin, Lake Erie Female Seminary, Painesville, O.
James M. Gregory, Professor of Latin, Howard University, Washington, D. C.

g. The Executive Committee returned the resolutions touching the degree of Doctor of Philosophy (page 4), with the recommendation that they be passed.

These resolutions were laid before the Association. Professor March, while admitting the gravity of the evil arising from the abuse

of the power to confer degrees, thought the contemplated action lay without the proper sphere of the Association. Professor Gilder-sleeve coincided with Professor March. Professor J. W. White gave some illustrations of the way in which the degree is now con-ferred. He urged that some protest ought to be raised against the practice, and that there were no non-local organizations in the country from whom such a protest could come with more propriety or with less danger of invidious reception.

The question being put, the resolutions were passed.

The President appointed as a committee of three to confer with the American Association for the Advancement of Science, Pro-fessor John Williams White, Professor Charles R. Lanman, and Professor Irving J. Manatt.

The Curator of the Association, Professor Lanman, made a report as a matter of record.

There were in his charge at Cambridge, Mass., two chests containing Proceed-ings and Transactions, records and correspondence, and sundry books that had been given to the Association; further, there was in the Watkinson Library Building at Hartford, Conn., a considerable stock of the publications of the Association; and, finally, there were a few of the same publications at New Haven, Conn., in the care of Professor Whitney and Mr. Addison VanName.

On motion, the President appointed a committee, consisting of Professors March, J. W. White, and T. D. Seymour, to nominate officers for the ensuing year.

On motion, Professors Whitney, D'Ooge, and Toy were appointed a committee to recommend a suitable time and place for the next meeting.

The Vice-President, Professor F. D. Allen, of Harvard Univer-sity, then took the chair and the reading of papers was resumed.

9. The Use of Abstract Verbal Nouns in Thucydides, by Dr. E. G. Sihler.

One of the most striking features of the style of Thucydides is his tendency towards condensation; and this is particularly observable in his use of verbal nouns in -σις. Such nouns occur, roughly speaking, 400 times. A few of them had obtained general currency before the time of this historian, — for example, ὄψις, τάξις, sundry compounds of -βασις, πρόφασις, etc. The great majority of them, however, are distinctly Thucydidean. Stahl's edition contains 471 pages. Using this as a basis of calculation, these verbals occur, on the average, once in 1⅛ pages of text. The average amount of text in which one occurrence is found, is, for the several books, as follows: for book i., 1⅔ pages; ii., 1½; iii., ⅔; iv., 1¼; v., 1¼; vi., 1⅞; vii., ⅔; viii., 2. Comparing these with the general average, 1⅛,

the diversities are, on the whole, too small to warrant any inferences as to the stylistic development of Thucydides, although the last book may possibly have been less thoroughly worked over into the characteristic diction of the author.

In respect of function and usage these nouns show differences sufficient to be made the basis of their classification. They are found:

1. As substantives, pure and simple ; as subject, or object, or predicate-noun ; and in prepositional phrases.

2. With a genitive objective attached. Here their verbal force is well maintained.

3. Introducing constructions such as would properly follow a verb.

4. In dependence upon a genitive subjective or possessive.

5. In periphrases with ποιεῖσθαι, γίγνεσθαι, ἔχειν, παρέχειν, εἶναι.

1. They are employed with concrete force ; as, ἐπίκλησις, equivalent to ὄνομα, i. 3. 2. This is especially the case in couplets ; e. g. καὶ λιμένα καὶ ἐφόρμησιν, vi. 48. Double compounds occur ; as, προεκφόβησις, v. 11. 2. Modified by an attributive of some complexity, these verbals make a very concise phrase ; thus, διὰ τὴν ἐκ τῆς Λευκάδος ἀναχώρησιν, iii. 102. 3. The verbal sometimes replaces a subordinate clause ; as δεδιὼς τὴν δίωξιν, iii. 33. 1.

2. This class comprises 125, or nearly one third of the whole. Here the word in -σις retains the active function of a verb, and also, as a noun, admits of precise determination of its logical relation to the leading clause or word. This relation may be : temporal, as, μετὰ Ἰλίου ἅλωσιν, i. 12. 3 ; instrumental, as, χρυσῶν τετ-τίγων ἐνέρσει, i. 6. 3 ; final, as, ξύμμαχοι ἐγενόμεθα . . . ἐπ' ἐλευθερώσει, etc., iii. 10. 3.

3. The verbal introduces an indirect question (i. 73. 3) or an object clause (i. 132. 5), κατὰ ἐνθύμησίν τινα ὅτι, κτλ. The future infinitive occurs twice with δόκησις. The dative of interest is found with καταδούλωσις. The genetivus privandi of στερεῖν is maintained with στέρησις, ii. 63. 1.

4. Under this head fall about 42 cases. Here double compounds are frequent ; as ὀργιζόμενοι τῇ προαναχωρήσει τῶν Μακεδόνων, iv. 128. 4. Genitives subjective and objective are combined at vii. 34. 6. A number of nouns assume a concrete sense (e. g. διάβασις, 'ford ').

5. These verbals occur about 70 times in periphrasis. The verb is ποιεῖσθαι in nearly half (32) of these instances, and γίγνεσθαι in a quarter. The former is used especially in speaking of military movements ; as, ἐποιεῖτο τὴν δίωξιν, iii. 33. 3.

With reference to the use of these verbals, Mr. Sihler compared Thucydides with his predecessors Herodotus and Antiphon, and his successor Xenophon.

The eighth book of Herodotus is equivalent to about one sixth of Thucydides. The occurrences of the -σις nouns number 40, and are to those in an equal amount of Thucydides as 3 to 5. But 15 are nouns long in vogue, like ὄψις and φύσις. The accumulation and insertion of attributives and other modifiers is the feature of Thucydidean diction most strikingly absent in Herodotus.

Antiphon's extant works are in bulk rather more than one eighth of Thucydides. The verbals occur 38 times, or thrice where Thucydides would use them four times. The percentage of new and original formations is much larger than in Herodotus.

The first three books of Xenophon's Hellenica equal one fifth of Thucydides.

There are but 25 occurrences; or considerably less than one third as many as Thucydides would have in that space. The variety is limited and nouns like πρόφασις, στάσις, πρᾶξις, κρίσις, and φύσις make up most of the count. A very small number of free formation are noteworthy: thus, φοίτησις, i. 6. 7, and ἀντίληψις, iii. 5. 5.

10. **On the Vowel-scheme of Melville Bell, by Professor Samuel Porter, of the National Deaf-mute College, Washington, D. C.**

The main aim of this paper was to offer suggestions in the way of supplement to and rectification of the vowel-scheme of Mr. Bell, — as the same is set forth, in a slightly modified form, by Mr. Henry Sweet, in his Handbook of Phonetics.

One thing to be desired is a more precise description of the articulating organs, and of the oral configuration for the several vowels. The forward boundary of the guttural passage needs to be defined, not only as made by the division between soft and hard palate, above, but also, on the sides, by the inner and anterior edge of the ascending branch of the lower jaw, behind which line the guttural passage widens out and thus makes a compartment which is, or may be, distinctly separated from the rest of the oral cavity. Again, it needs to be noticed that, as the dome of the hard palate widens in receding from the front and the tongue also widens from the point backwards, the passage made by applying the tongue to the palate at different points, in the positions for *i, e, æ,* respectively, would naturally differ in breadth. On the soft palate also, there would be a similar difference for *u, o,* and *å.* Again, not only the place of greatest constriction between tongue and palate should be noted, but the mode of formation (and hence the position and limit) of the resonance-chamber forward of this place needs to be distinctly described. This (for non-labials, and as an inner chamber for labialized vowels,) is made by the tongue flaring away from the palate. It is closed on each side by contact of margin of tongue with palate or with the walls of the guttural passage; and its forward limit is just where this contact ends. Thus, the place of constriction forming, as it were, the neck of a bottle, the resonance-chamber in question would be the flaring mouth of the bottle. It is important in every case to note the limit of this resonance-chamber. Another cavity, answering to the body of the bottle, lies back of the place of constriction; but this probably contributes far less to the quality of the vowel.

Instead of variation of tongue-position "horizontally" for the "back," "front," and "mixed," and "vertically" for the "high," "mid," and "low" vowels, these differences are, in fact, all made alike by horizontal variation. This is virtually admitted by Mr. Sweet (*Handbook,* page 211). *Outer* and *inner* would thus seem more appropriate terms than "high" and "low."

The *a* (in *father*) is wrongly placed as "mid-back-wide;" and should be set by itself, for reasons to be stated further on. And, for the mixed vowels, a dual instead of the threefold division is sufficient. Thus we should have nine leading vowel positions: — three front, *i, e, æ;* two mixed, *eu* and *eû* (as in *leur* and *jeûne,* French); [*] three back, *u, o, å* (as in *all*); — these eight having, in this order, the place of constriction and also the limit of the resonance-chamber re-

---

[*] Bell and Sweet regard the *eu* French, not as a "mixed" vowel, but as an *e* labialized. Of course, it is a labial anyway.

ceding further and further by eight successive steps ; — the three front positions being under the hard palate; the three back on the soft palate and limited entirely to the guttural passage ; and the *eû*, of the mixed, limited to the guttural passage, while the *eu* reaches over across the division between soft and hard palate ; the ninth, the *a*, is to be described below. For the back vowels, the axis of the resonance-chamber inclines more and more upward from *â* to *u ;* for the mixed, points directly forward ; and for the front, inclines downward.

The difference between the "narrow" (or "primary") and the "wide," as it is in fact, and as described by Mr. Sweet (*Handbook*, page 9), would better be designated by the terms *close* and *open.* It makes the difference between the quality of the long *i, e, æ, u, o, â*, and *eû*, respectively, and, on the other hand, the quality we give to the corresponding English short and stopped vowels. Of this difference, there may with advantage be noted, not merely two, but, for the seven vowels just named, as many as four degrees, which may be designated as the *close*, the *half-open*, the *open*, and the *open-depressed.* We need the second, the half-open, for the quality given to the short vowel in the Continental languages generally, the same which we hear in the attempts of foreigners and of Scotchmen to pronounce the short stopped vowels in English. Sometimes, also, to mark the quality of a vowel in unaccented syllables. Also, for the terminal part of our long *i* and of our *ou* diphthong. The open-depressed occurs in a drawling pronunciation of our short vowels, that is still habitual to some extent in New England, and elsewhere also, and perhaps may be heard almost anywhere occasionally in some such words as " Well " and " Yes." Without any such inelegance, it may be employed on these vowels in the way of emphasis. Tongue-depression is a natural attendant on ·the nasal twang, as this draws forward the soft palate, opening the way to the nose. That the *eû* should admit of four degrees (the fourth being made by depression from the *u* in *up, but*), while the *eu* (of which our *e*arth and b*i*rd are non-labial forms) can admit of not more than two degrees at the most, is because the *eû* position is wholly within the guttural passage, thus allowing range of tongue-movement vertically, while for the *eu*, the position reaching further forward, there can be no such movement without breaking the lateral contact entirely. The *eû*[4] is the initial of our long *i* and our diphthong *ou.*

The *a* is to be set apart from the other vowels, for the reason that the place of constriction is not on tongue and palate at all; but the constriction is between the epiglottis, or the part of the tongue just above the epiglottis, and the back wall of the pharynx. Sounding this vowel on a low pitch, we can easily produce a decided trill from the epiglottis; and more or less of a fricative quality from this source is always to be distinguished in this vowel. On the other hand, in the *â, o*, and *u* vowels, there is always more or less of a peculiar quality that proceeds from the soft palate, and that is not perceptible at all in the true *a* vowel. The evidence of the ear, that of the eye, and that of the touch, — all go to exclude this vowel from the category of the *â, o, u*. Again, the *a* differs from all other vowels in this, that, in their case (laying out of account now the fourth degree), the open is naturally shorter than the close, and the short tends to be less close than the long; while for the *a* the reverse is the fact, the tongue is raised for the shorter and is depressed for the longer form of this vowel. For a test, compare the different *a*'s in the French.

Placing the *a* thus by itself, we have the only arrangement that is in accord-
ance with facts in the history of language. We have it in a position from which
there is an easy, and physiologically perfectly natural, transition both to the front
vowels under the hard palate and up along the back series on the soft palate. To
locate it as "mid-back-wide" is to put it out of all such relation. Mr. Sweet
(*History of English Sounds*, p. 28) has accordingly been led to assign as the point
of divergence, not a proper *a* vowel, but an *å*, the "low-back-wide," the "Scotch
short *a* in *man*;" which, in fact, has no direct relation of easy transition with
any front vowel.*

It is to be remarked that, for the *a* vowel, the effective resonance-chamber
does not extend forward of the boundary of the guttural compartment. This
is proved by uttering, as may be done, a clear and proper *a* with the tongue
retracted within this boundary.

It is claimed as a merit on the part of the Bell system that it does not assume
a correspondence between acoustic and physiologic characters ; that is to say, it
admits, and contends, that sounds presenting similarity may proceed from quite
dissimilar organic adjustments, — that thus, for instance, the French *peur* is liable
to be confounded with the English *purr*. But, if the vowel in *peur* is really
spoken, in the way Mr. Sweet thinks correct, as a labialized *e*, it will hardly, in
fact, be confounded with or likened to the *u* in *purr*. And, at all events, it is
only so far as sound corresponds to organic adjustment and action, that a physi-
ological scheme of the vowels can have any value whatever. If it were so that
precisely the same sound could be produced by two or more different organical
instrumentalities, the value of any such scheme would be so far diminished. To
deny that there are generic characters of sound that correspond to generic organ-
ical characters, would be to detract from the value of the Bell vowel-scheme to
an extent doubtless beyond what Mr. Sweet would approve.

It is to be noticed that there is a way of adjusting the point of the tongue
upon the palate with an effect that shall simulate, though not exactly imitate,
that of labial contraction. The two adjustments may even be combined, as they
perhaps sometimes are in the French *u* and *eu*, or the German *ü* and *ö*. This
adjustment is to be carefully distinguished from the resonance-chamber as that
exists apart from such modification.

These criticisms and the proposed amendments are offered, not with any
disposition to disparage the work of Mr. Bell and of Mr. Sweet, but in hearty
recognition of the eminent service they have rendered to phonetic science, and
with the view of contributing to the correction of what, if they are defects, could
not fail to hinder the full and final success of the scheme to which these gentle-
men have given so much of their labor.

The Association adjourned at 6.15 P. M. until Thursday morning.
In the evening, about thirty of the members took part in an ex-
cursion from the Forest City House through Euclid Avenue to East

* By Dr. Graham Bell, as well as by Mr. Sweet, the *a* in *father* is ranked as "mid-back-
wide." The elder Mr. Bell has never so described it ; the implication to the contrary, in the
note in the separate issue of the *Proceedings*, was erroneous. But, what is hardly less objec-
tionable, he does give this position to the *a* in *ask*, *path*, etc.

Madison, and thence to Gordon Park on the border of Lake Erie. Upon their return a collation was served in the Public Library Building.

<p align="center">CLEVELAND, OHIO, Thursday, July 14, 1881.</p>

<p align="center">MORNING SESSION.</p>

The Association came to order at 9.15 A. M. The minutes of Wednesday's sessions were read by the Secretary, and approved.

Remarks upon Professor Porter's paper were made by Dr. B. W. Wells and Professor Whitney. The reading of communications was resumed.

11. On Latin Pronunciation, by Professor M. M. Fisher, of the University of Missouri. This was presented by his colleague, Professor Blackwell.

The author criticised the " Roman " or " Restored " method, claiming that it could never be taught with uniformity inasmuch as its ablest advocates differed widely in regard to its details. He argued that the true ancient pronunciation could never be positively and fully known, and that, from practical considerations, it was better to adhere to the English system of pronouncing Latin.

Dr. Sihler spoke of the agreement of the best German authorities in regard to the general correctness of the Roman or historical method.

Professor J. B. Weston, of Antioch College, Yellow Springs, Ohio, said that men did not agree respecting *all* sounds in English, and that a disagreement concerning a few sounds in the Roman pronunciation did not militate against its adoption as a system. Moreover, it was better to be near the truth than far from it.

12. What is Articulation? by Professor Whitney.

The word "articulate " is generally used as distinctively descriptive of human speech; but for the most part without any clear idea of what it really means, or why human speech should be designated in this particular way. And this unclearness is found not only in popular use, but in that of scientific treatises, even those of a high class. In Sievers's *Lautphysiologie*, for example, " articulation " is defined and used in a way that makes it the precise equivalent of " utterance," voluntary production of sound by a living creature, whether human or other than human. Is this authorized, or to be approved?

The term goes back to the Greek ἔναρθρος, which means ' jointed,' and is used primarily of physical jointing, as that of a limb, or of a stalk of grass. The corresponding noun and verb are ἐνάρθρωσις and διάρθρωσις, and διαρθρόω. These are rendered by the Latin *articulo*, denominative of *articulus*, 'joint,' and its various forms and derivatives.

Now articulation in this its literal sense, of jointedness, is in very truth *the* characteristic of human speech-utterance, distinguishing it from other varieties of human utterance, as laughing, crying, groaning, yelling, etc., and from all brute utterance. Speech moves on by a succession of similar parts, separate but joined on to one another — namely, syllables. Articulation is virtually syllabica- tion, — a breaking of the stream of utterance into joints, by the intervention of closer utterances, or consonants (only exceptionally of hiatus), between the opener utterances, or vowels. The essence of articulation lies not in the mode of production of the individual sounds, which is virtually alike in all animals possessing voice, but in the mode of their combination. We recognize this mean- ing plainly enough still, in saying that a person "articulates well," when the transitions between vowel and consonant elements are clearly made; or in accus- ing of bad articulation a singer who slurs the consonants and hardly utters any but vowel tones, or a mumbling indistinct speaker. Articulation in this sense is a still higher characteristic of speech, inasmuch as it is an acquired one, coming with the historical development of speech. We have every reason to believe that the first significant uttered elements were monosyllables, earlier open ones, perhaps later in part closed ones (this is a disputed point). In this stage lan- guage was not properly articulate; each utterance was a simple isolated voice- gesture, in meaning equivalent to a whole sentence. But such an isolated utter- ance was made complicate, in part by repetition or reduplication, in part by combination with other like utterances: this combination being either syntacti- cal, as now in Chinese, so that each sentence became an articulated whole, each joint having its own meaning and motion, or, on the other hand, in part also agglutinative, so that each word became an articulated whole, its members hav- ing each its own part to play as a joint, and the sentence became a jointed entity of double complication. Our own children have to go through a similar course: they begin with simple utterances, and with isolated ones, learning later, by prac- tice, to joint these on to one another in an unbroken articulated succession. And the organs of the lower animals are not incapable of producing single sounds like enough to ours; but those animals are incapable of the development which would lead them to combined articulated utterance.

It appears, then, as if the Greeks made one of their very happiest hits, showed their genius for observation and distinction at its best, in calling human utter- ance 'jointed;' no other term could so well describe its phonetic character, nor be so deeply founded in its history. It is a great pity if we cannot show the secondary ability to understand what they meant, and to keep the word to its true value. If there really is no available German word for 'utter,' and *articulate* must hence be reduced to that sense in German use, let it be done at least with the confession and excuse of poverty, and not as if no degradation of the word, but only a proper continuation of it in its ancient significance, was implied in such use.

13. On the Origin of *ν* Movable in Greek, by Professor Fisk P. Brewer, of Iowa College, Grinnell, Iowa.

The origin of *ν* movable in Greek seems to have been different after different endings.

1. In third-singulars in -*ε*. Here the view of Deventer is accepted, that the

forms with -ν are earlier than those without. Otherwise, the ν should appear under similar phonetic conditions after -ε in the second person and elsewhere.

In the parent speech these forms ended in -τ. Deventer supposes that this -τ was changed directly to -ν, but gives no other instance of such a change. Perhaps the true explanation is that there was an assimilation of the third-singular to the third-plural. When the earliest Greeks began to discard final mutes, and to modify all such words as *ἔλυετ and *ἔλυσετ, they remolded these to ἔλυεν and ἔλυσεν, in imitation of the new plurals ending in -ον and -σαν. About the same time, probably, the third-plurals assimilated in accent to the third-singulars,

$$\text{*ἔλυετ and *ἐλύοντ, \quad *ἔλυσετ and *ἐλύσαντ}$$

becoming ἔλυεν and ἔλυον, \quad ἔλυσεν and ἔλυσαν.

This was not a development of ν from τ, but a replacement of one letter by the other. The change may have been facilitated by the fact that ν or αν was in the earliest times a representative of a third-person pronoun in Greek verbal endings, and in later times remained a recognized demonstrative element.

N movable in these forms may be considered, then, a personal ending of secondary formation which began to fall away, but was continued in the literary period, subject to phonetic rules for its use and omission.

2. In third-plurals in -σι. The earlier form was λύοντι, which never assumes ν. Such forms as λύονσι and λύωνσι also exist. From these came the ordinary λύουσιν by transfer of the liquid, -νσι changing to -σιν. The final ν, representing in its original position a third-person pronoun, was unstable in its new place, and became a movable letter.

3. Later all other words in -σι assumed ν as a mere phonetic addition, acquiring double forms after the analogy already established in the frequently recurring forms of the third plural. ἔστιν seems anomalous, though Deventer considers the termination -στι sufficiently like -σι to have assumed ν by the same analogy.

It is admitted that the above explanation rests on slender evidence, but it is claimed to accord better with the general process of word-formation than to consider ν movable from the beginning a merely euphonic addition.

14. On the Use of πρίν in the Attic Orators, by Professor B. L. Gildersleeve, of the Johns Hopkins University, Baltimore, Md.

In the introductory part of the paper the author took occasion to show how carelessly and inconsistently the particle had been handled even by leading writers on grammar. The negative element which is involved in πρίν has been overlooked, and false rules for use have been laid down. The difficulty of the combination with πρίν and the infinitive has not been fairly met. As a prepositional combination with the infinitive, it is an anachronism, and yet it is hardly explicable on other grounds.

After detailed strictures on various points the author proceeded to present, with a few comments, the normal use of πρίν, with a tabular conspectus of the occurrences in sentences that might have assumed the finite form; but the examples weigh little in comparison with the whole number, and we are far from the Homeric freedom, — nearer the scenic norm. πρίν with the infinitive after affirmative sentences is becoming a rule; πρίν with the indicative after affirmative clauses is extremely rare. Perfect infinitive and present infinitive are rare

and carefully used, and there is little good warrant for πρὶν ἤ or the omission of ἄν. Of individual peculiarities in the handling there is not much to be said. Isokrates in his more formal orations treats πρότερον — πρίν as he does everything else, in the interest of his æsthetic seesaw and fastidious rhythm. There is more masculinity and familiarity in the abrupt use of πρίν, as for instance in Lysias.

15. On the use of the Aorist Participle in Greek, by Professor T. D. Seymour, of Yale College, New Haven, Conn.

The aorist participle seems to have no more natural right than the aorist infinitive to the signification of past time. We find examples of this *achronic* use, e. g., in Homer, Ⅹ 210, ἅμα δ' ἠελίῳ καταδύντι | πυρσοί τε φλεγέθουσιν. A paper was presented to this Association at Baltimore in 1877 on the "Temporal Coincidence of the Aorist Participle with the Primary Verb," in ἤκουσε εὐξαμένου, κτλ., by Professor Merriam.

Although there are many instances to be found of this original use, yet the rule is that the aorist participle regularly refers to an action or state "which is past with reference to the time of the leading verb." An explanation of this may be found by an examination of the different classes of participles.

The aorist participle when attributive clearly corresponds to the aorist indicative (οὗτος ὁ λύσας = οὗτος ὃς ἔλυσε), and as the aorist infinitive refers to past time when it represents the indicative, so naturally is it with the participle. When this participle corresponds to the subjunctive or optative the case is different, as we should expect.

The same principle holds with the supplementary participles; ἔλαθεν ἀφικόμενος corresponds to ἀφίκετο λάθρα, ἔτυχεν ἰδών to εἶδεν τύχῃ, φαίνεται σπουδάσας to φαίνεται ὅτι ἐσπούδασε, κτλ. In all these instances the participle represents the indicative mood.

For the circumstantial participles it is instructive to compare, e. g., Homer, Δ 149, ὡς εἶδεν μέλαν αἷμα ῥίγησεν, and 217, ἐπεὶ ἴδεν ἕλκος, ἐπὶ φάρμακα πάσσε, with 279, ῥίγησέν τε ἰδών. So ἐπεὶ παύσαντο πόνου κτλ. would be expressed by most prose writers παυσάμενοι πόνου κτλ. ἐδαίνυντο. It is a commonplace saying that in the English idiom two verbs are used where the Greek preferred a verb and a participle. Thus εὔχετο χεῖρας ἀνασχών is logically though not rhetorically equivalent to ἀνέσχε χεῖρας καὶ εὔχετο, ἄνοιγε ἀνύσας to ἄνυσον καὶ ἄνοιγε; so in Homer, Α 85, we have θαρσήσας μάλα εἰπέ and, 92, θάρσησε καὶ ηὔδα.

Often the participle corresponds to the subjunctive or the optative mood; so Homer, α 163, εἰ κεῖνόν γε ἰδοίατο νοστήσαντα κτλ. may be resolved into εἴ γε νοστήσειε . . . . πάντες κ' ἀρησαίατ' ἐλαφρότεροι πόδας εἶναι, and perhaps Κροῖσος ῞Αλυν διαβὰς μεγάλην ἀρχὴν καταλύσει into ἐὰν διαβῇ κτλ.

In general, however, the aorist participle, whether attributive, supplementary, or circumstantial, represents the aorist indicative, and thus naturally refers to time prior to that of the principal verb. In later Greek, as was to be expected from the predominance of this reference to past time, this participle was used as an absolute past participle.

Remarks were made on this paper by Professors Price and Gildersleeve.

16. Report of the Committee on the Reform of English Spelling, by the Chairman; Professor F. A. March, of Lafayette College, Easton, Pa.

The Philological Society of England has just issued a pamflet entitled " Partial Corections of English Spellings aproovd of by the Philological Society." These corections ar the result of a discussion introduced by the President, Dr. Murray, in his retiring adress on the 21st May, 1880, and continued thru six meetings. Mr. Sweet was authorized to prepare a statement of the results, and this was finaly adopted at a special general meeting on January 28th, 1881. The corections ar made in the interest of etymological and historical truth, and confined to words which the changes do not much disguize from general readers.

Your Comittee finds that the corections of the Philological Society's pamflet ar such as ar contemplated in the report of your Comittee of 1875, and in subsequent reports; and it recomends the imediate adoption of the following corections which ar therein set forth, and which ar uzed in this report:

1. e. — Drop silent *e* when foneticaly useless, as in *live, vineyard, believe, bronze, single, engine, granite, eaten, rained,* etc.
2. ea. — Drop *a* from *ea* having the sound of ĕ, as in *feather, leather, jealous,* etc.
   Drop *e* from *ea* having the sound of a, as in *heart, hearken.*
3. eau. — For *beauty* uze the old *beuty.*
4. eo. — Drop *o* from *eo* having the sound of ĕ, as in *jeopardy, leopard.*
   For *yeoman* write *yoman.*
5. i. — Drop *i* of *parliament.*
6. o. — For *o* having the sound of ŭ in *but* write *u* in *above* (abuv), *dozen, some* (sum), *tongue* (tung), and the like.
   For *women* restore *wimen.*
7. ou. — Drop *o* from *ou* having the sound of ŭ, as in *journal, nourish, trouble, rough* (ruf), *tough* (tuf), and the like.
8. u. — Drop silent *u* after *g* before *a,* and in nativ English words, as *guarantee, guard, guess, guest, guild, guilt.*
9. ue. — Drop final *ue* in *apologue, catalogue,* etc.; *demagogue, pedagogue,* etc.; *league, colleague, harangue, tongue* (tung).
   Drop *e* in *argue, ague.*
10. y. — Spel *rhyme* rime.
11. Dubl consonants may be simplified :
    Final *b, d, g, n, r, t, f, l, z,* as *ebb, add, egg, inn, purr, butt, bailiff, dull, buzz* (not *all, hall*).
    Medial before another consonant, as *battle, ripple, written* (writn).
    Initial unaccented prefixes, and other unaccented syllabls, as in *abbreviate, accuse, affair,* etc., *curvetting, traveller,* etc.
12. b. — Drop silent *b* in *bomb, crumb, debt, doubt, dumb, lamb, limb, numb, plumb, subtle, succumb, thumb.*
13. c. — Change *c* back to *s* in *cinder, expence, fierce, hence, once, pence, scarce, since, source, thence, tierce, whence.*
14. ch. — Drop the *h* of *ch* in *chamomile, choler, cholera, melancholy, school, stomach.*
    Change to *k* in *ache* (ake), *anchor* (anker).

15. d. — Change *d* and *ed* final to *t* when so pronounced, as in *crossed* (crost), *looked* (lookt), etc., unless the *e* afects the preceding sound, as in *chafed, chanced.*

16. g. — Drop *g* in *feign, foreign, sovereign.*

17. gh. — Drop *h* in *aghast, burgh, ghost.*
   Drop *gh* in *haughty, though* (tho), *through* (thru).
   Change *gh* to *f* where it has that sound, as in *cough, enough, laughter, tough,* etc.

18. l. — Drop *l* in *could.*

19. p. — Drop *p* in *receipt.*

20. s. — Drop *s* in *aisle, demesne, island.*
   Change *s* to *z* in distinctiv words, as in *abuse* verb, *house* verb, *rise* verb, etc.

21. sc. — Drop *c* in *scent, scythe* (sithe).

22. tch. — Drop *t*, as in *catch, pitch, witch,* etc.

23. w. — Drop *w* in *whole.*

24. ph. — Write *f* for *ph*, as in *philosophy, sphere,* etc.

On motion, the Report was approved, and the committee, appointed in 1875, was continued for another year, the name of Professor T. R. Lounsbury, of Yale College, being added, to serve in place of the late Professor S. S. Haldeman. It now consists of Messrs. Whitney, Child, Trumbull, March, and Lounsbury.

It was voted that the reports of the committees on the time and place of the next meeting and on nomination of officers be called for at the beginning of the afternoon session.

The Association thereupon took a recess.

CLEVELAND, OHIO, Thursday, July 14, 1881.

AFTERNOON SESSION.

The Vice-President, Professor Allen, called the Association to order at 4 o'clock.

Professor March, in behalf of the committee appointed to nominate officers for the year 1881–82, reported as follows:

For *President* — Professor Frederic D. Allen, Harvard University, Cambridge, Mass.

For *Vice-Presidents* — Professor Milton W. Humphreys, Vanderbilt University, Nashville, Tenn.; Professor M. L. D'Ooge, Michigan University, Ann Arbor, Mich.

For *Secretary and Curator* — Professor Charles R. Lanman, Harvard University, Cambridge, Mass.

For *Treasurer* — Charles J. Buckingham, Esq., Poughkeepsie, N. Y.

For additional members of the *Executive Committee* —

Professor Basil L. Gildersleeve, Johns Hopkins University, Baltimore, Md.
Professor William W. Goodwin, Harvard University, Cambridge, Mass.
Professor Thomas R. Price, University of Virginia, Va.
Dr. J. Hammond Trumbull, Hartford, Conn.
Professor William D. Whitney, Yale College, New Haven, Conn.

The report was accepted, and the persons therein named were declared elected to the offices to which they were respectively nominated.

Professor Whitney reported for the committee on time and place of meeting. It was recommended that the next session be held at Boston, Mass., or some place in its immediate vicinity, on Tuesday, July 11, 1882, at 3 P.M. The determination of the precise locality of meeting was left to the Executive Committee.

On motion, the report was accepted.

At this session, the election of the following members was announced:

Professor Irving J. Manatt, Marietta College, Ohio.
Professor John L. Johnson, University of Mississippi, Oxford, Miss.

The reading of papers was resumed.

17. Shemitic or Semitic? by Professor Blackwell.

It were much to be desired that some uniformity were prevalent among scholars in the use in the English language of one or the other of the terms "Shemitic" or "Semitic." I believe the time is near at hand when the desirable uniformity will be secured, and when scholars will settle upon Semitic. The defenders of Shemitic have been chiefly, I believe, from the theological side, though Shemitic and Semitic, with a preference for the latter, both occur in Kitto's Bible Cyclopedia, in the able article by Emmanuel Deutsch. Smith's Bible Dictionary dismisses the controversy with the curt and half-indignant statement that "English scholars have lately adopted from the French the form Semitic, but there is no reason why *we* should abandon the Hebrew sound because the French find the pronunciation difficult." (Vol. IV. p. 2971, *note.*) Professor Murray (*Origin and Growth of the Psalms*, p. 2) remarks that "Semitic and Semite, now so much in vogue as to be almost good usage, are survivals of the French nomenclature of the English Orientalists who learned Arabic at the feet of De Sacy." It will be observed that the statement of Smith's Bible Dictionary involves several charges: first, That English scholars have *lately* adopted Semitic; second, That there is no reason why *we* should abandon the Hebrew sound; third, That we received Semitic from the French; fourth, That the French find the pronunciation of *sh* difficult. Professor Murray grants, in addition to the third charge, that Semitic is in "*almost* good usage."

I. With regard to the first charge of Smith's Bible Dictionary, that English

scholars have "lately" adopted Semitic, it may be said that they must have lately adopted it if they were to adopt it at all, using the word "lately" in a broad sense. The term was not in general use until the first quarter of this century, having been used in Germany, as it is alleged, first by Schlözer in 1781, only nineteen years before 1800. Its use could not, however, have been general, since Eichhorn claims to have introduced it in place of "Oriental" in 1794, and could not have known of any earlier usage. If the English scholars who introduced the objectionable term, learned it, as Professor Murray asserts, "at the feet of De Sacy," they must have used it at its very earliest entrance into speech, for De Sacy was in the prime of his fame in the beginning of this century. In 1800 De Sacy was forty-two years old, had been known as a prominent Arabist since his memoir on the "History of the Arabs before Mohammed," read in 1785, and had been a professor of Arabic for five years. It was in 1806 that he was appointed to the professorship of Persian in the Collége de France, and in the same year appeared his *Chrestomathie Arabe*, three years before the death of Schlözer, and twenty-one years before the death of Eichhorn. Hence even from the very arguments of the defenders of Shemitic, it may be proved that the term Semitic preceded it in English usage. It would, therefore, be entitled to all the rights which precedence gives, and should not be evicted by Shemitic without some good grounds. Not only so, but the English pupils who had imbibed and assimilated the instructions of such a man as De Sacy, would undoubtedly have such rights as are by common consent freely granted to distinguished special learning, and would justly lay a claim to the prerogative, above other men of meaner qualifications and less acknowledged authority, of determining and fixing what our usage should be.

II. The second point of the remark in Smith's Bible Dictionary is that "there is no reason why we should abandon the Hebrew sound." Shall we then be required to say Shabbâth for Sabbath, Môshe for Moses, Shelach for Salah, Yerushalaim for Jerusalem, Sh'altiêl for Salathiel, Shôm'rôn for Samaria, Shimshôn for Samson, Sh'muêl for Samuel, Shâûl for Saul, Shêth for Seth, Shim'ôn for Simon, Sh'lômôh for Solomon, Abhshâlôm for Absalom, Yeshai for Jesse, Y'shayâhû for Isaiah, M'nassheh for Manasseh, Yêshû'a for Jesus, Shôshannah for Susannah, and Mâshîach for Messiah? The Jews also are sinners against the rule set up in the Bible Dictionary, for they very usually write Shim'ôn in the Talmud with a *Samekh* instead of a *Shin*, as for instance in the Talmud of Jerusalem, Shab. 11 : 2, and Berach, 8: 1. The very sufficient answer against the enforcement of the implied recommendation of Smith's Bible Dictionary seems to me to be that many of these names have become part and parcel of our speech, and are woven into the woof of our historical and domestic life. *Sem* stands in the same category, for we find it where we have found the other names, namely in the English Bible, e. g. in Luke 3 : 36. To the allegation that there is "no reason" for the adoption of Semitic, I answer again briefly that Semitic appears to me the better term because of the very possibility of its failing to suggest to an English mind the more usual form of the name Shem. *Japhetic* is about obsolete, *Hamitic* is obsolescent, and *Shemitic*, founded on error and guarded by prejudice and obstinacy, should follow in the same road. It is possible for Semitic to attain a conventional wide significance, similar to that we attribute to Aryan and Turanian; Shemitic, on the contrary, carries with it the history of a misconception, from which it cannot easily be divorced.

III. The writer of the article "Shemitic Languages" in Smith's Bible Dictionary affirms that we received Semitic from the French, and Professor Murray coincides with this statement. No evidence, no reference to any historical document, is cited by either authority. But it is not a necessary conclusion, at all, that we borrowed the term from the French. There were other persons in England besides Coleridge, in the beginning of this century, who, like him, were more or less devoted both to Semitic and to German literature, and who may have seen the word and used it at its earliest invention. Coleridge was twenty-eight years of age in the year 1800, when Eichhorn's *Bibliothek* had been six years before the public, and it is not unlikely that he had used the word as early as De Sacy used it. At any rate, that the word Semitic was known to him as early as Feb. 24, 1827, is matter of history, for it occurs in his "Table-talk" of that date. The statement of Smith's Bible Dictionary, therefore, that it has been "lately adopted" from the French, must be modified in so far that the word "lately" may mean fifty years.

IV. The Dictionary further affirms that the French find the pronunciation of our *sh* difficult. We should hardly expect to find anything "sensational" in a Bible Dictionary, but this statement is certainly very remarkable. How a Frenchman would allow himself to be convulsed with such impossible phonetic combinations when he would speak of his *chapeau*, or of his *cheval* which draws his *chaise* along his *chemin*, is only to be explained by the fact that a Frenchman is to an Englishman past finding out. The Abbé Chiarini, who spells the letter *Shin*, C-h-i-n, in p. 64 of his *Prolégomènes à la version du Talmud*, would doubtless have raised in the writer in Smith's Bible Dictionary the notion that the design in this odd orthography was to speak of a part of the human countenance.

In conclusion let me note that Professor Murray observes that Semitic is in "almost" good usage. But the Encyclopedia Britannica, the Penny Encyclopedia, the American, and the New American Encyclopedias, and indeed all the large encyclopedias excepting the Edinburgh one; the professors of Oxford and Cambridge, notably Professors Max Müller and Palmer; and indeed all the great scholars and writers of Great Britain, excepting a few like Davidson of obstinate Scotland, including the writers of such good English as Gladstone, Ruskin, Beaconsfield, and Fitz-Edward Hall, uniformly and exclusively use Semitic. In this country the usage of such scholars as Robinson, in his Travels and in his translation of Gesenius's Hebrew Lexicon, of Green, in his Hebrew Grammar, of the late Professor Hadley in his Essays, of Whitney and March in their respective Sanskrit and Anglo-Saxon grammars, and of Professor Murray's editor and annotator, make the practice more than respectable. In view of all that has been here urged, it may not improperly be said that the term Semitic is authoritative.

18. The Reading and Interpretation of Verse 572 of the Antigone of Sophocles, by Professor M. L. D'Ooge, Michigan University, Ann Arbor, Mich.

Aldus first assigned this line to Antigone, a view since advocated by Boeckh and adopted by the majority of editors. That Boeckh was unduly influenced by the supposed incongruity of the address ὦ φίλταθ' Αἷμων in the mouth of Ismene, is now generally acknowledged. The two principal reasons for giving

the line to Antigone are: (1) If the line is assigned to Ismene, τὸ σὸν λέχος of the next line must mean 'the marriage of which you speak,' which, although admissible so far as use of words is concerned, has no application to what Ismene has just said. (2) As the line stands, it is not what would be expected from Ismene in response to the reproachful observation of Creon, κακὰς ἐγὼ γυναῖκας υἱέσιν στυγῶ. Antigone, and not Haemon, is dishonored (ἀτιμάζει) by this reproach, against which Ismene would be likely to defend her sister.

But these considerations, it must be noticed, are objections against assigning the line to Ismene rather than arguments for giving it to Antigone. To suppose the line spoken by Antigone involves, as it seems to me, much graver objections. For, in the first place, we are then to hold that Antigone, who before this had made not the slightest allusion to her relations with Haemon, now so far loses sight of her absorbing devotion to her duty towards her brother, as to resent the imputation that she would be a bad wife for Creon's son. To be sure, Boeckh sees in this ejaculation a kind of magnanimity on the part of Antigone in that she notices the indirect taunt hurled at Haemon rather than the direct one aimed at herself; still, she is moved to break her dignified silence none the less by a reproach cast upon her λέχος. The unnaturalness of this is the more apparent when we take into account Antigone's utterance in 560. But again, to suppose this line spoken by Antigone makes the next line spoken by Creon exceedingly tame. It is hardly in keeping with the proud and indignant temper of Creon to take so little notice of this exclamation (to pay no attention to it at all would suit the situation), if it had fallen from the lips of Antigone. But to settle the interpretation of a line by simply weighing objections over against each other, is at best only a choice of evils. Whether the line be assigned to Antigone or to Ismene, it must be confessed that its connection with the context is not readily apparent. To make the connection of this line and of 569 more clear, Nauck proposes to bracket 570 and to transpose 571 and 572, so as to have this order: 569, 572, 571. According to his interpretation of 572, which he assigns to Ismene, Creon dishonors Haemon by intimating that he will comfort himself for the loss of his bride by finding another in her stead. While thus a better connection for 572 is gained, it is at the expense of the clearness of the relation of 571 to the context. Moritz Schmidt, in his recent edition, proposes more radical transpositions, which a sound criticism will be slow to accept. The only point of interest in his emendation is the connection he makes between 567 and 572, which he explains by supposing that ἀτιμάζει refers to Creon's disposal of Antigone without consulting his son who, having reached his majority, ought to have some voice in the matter. Not to speak of the *modernness* of this view, its finesse is out of harmony with the simplicity and directness of Ismene's character.

To remove the objections urged above against assigning 572 to Ismene, and to make apparent the connection of this line with the next following, I venture to propose a much simpler remedy, to wit, a change of σ' to σφ' in 572. The line would then read: 'O, dearest Haemon, how your father dishonors *her*' (i. e. Antigone), by calling her κακὴ γύνη for you his son. The omission of the article or pronoun with πατήρ is no objection, and the use of σφέ in Tragedy, when no deictic force is intended, is common enough. The disappearance of the φ from σφ' is quite similar to the omission of δ' in O. C. 1363, ἐκ σέθεν δ' ἀλώμενος, or of θ' in O. C. 1012, ξυμμάχους θ' ἵν' ἐκμάθῃς.

With this reading we first get a clear view of what is referred to by ἀτιμάζει,

and a fair connection for the next following line. Now Creon says, with mani-fest allusion to the exclamation of Ismene: Stop, you and this marriage to which you have been referring (just now and in 568 and 570) are provoking me beyond endurance. For this reference of τὸ σὸν λέχος we have proof in the scholium on this line: τὸ σὸν, τὸ ὑπὸ σοῦ ὀνομαζόμενον· οἷον, τὸ ὄνομα τῆς νύμφης ὃ σὺ προβάλλῃ.

From this scholium the proposed emendation receives inferential evidence; for, while the name of the bride is not mentioned in this connection, the proposed σφέ adds to the clearness of the reference.

19. A Confession about Othello, by Professor March.

The scenes in which Iago moves Othello to jelousy seem to me unnatural. I hav tried since my boyhood to make them seem natural, but I hav not suc-ceeded, — that is my confession.

If we compare the jelousy of Leontes we find it natural though utterly ground-less. It springs from temperament and mood in Leontes. But in Othello the attempt is made to show us a man, not jealous in himself, convinced by testimony and reasons that he has cause for jealousy.

His own view of his wife presents her to him in perfect purity. We ar to believ him overpowerd by reasons. There is great elaboration of the steps of Iago's procedure to convince him. We ar led therefore to scrutinize them, and we must see they amount to nothing. How could any man like Othello be moved by such tricks and trifles? It is possibl, to be sure, that a man should hav such perfect confidence in another as to accept his views without good reasons. If we ar to recognize such a friendship between Othello and Iago, grounds for it should be shown in the character of Iago in the earlier part of the play. But he is exhibited as a rascal, and a gross one, from the first. It is hard to think of such shallow rascality, so obtrusively set forth at every turn, as deceiv-ing any one. Was there some actor of Shakespeare's time who had a natural ex-pression of superhuman trustworthiness, some unimaginabl "confidence man," looking on whom the theater coud believ that any Othello must trust him in everything? Or has Shakespeare for once lowerd his genius to giv the actors an opportunity to show off their power of depicting changes of mood and passion too artificial for nature?

On motion of Professor Toy, it was

Resolved, That the following minute be put on the Records, and be sent to the gentlemen here mentioned:

The American Philological Association desires to express its hearty thanks to the Board of Education of Cleveland for the use of their Assembly Room, to the representatives of the Cleveland *Leader* and of the Cleveland *Herald* for their careful reports of the proceedings, to the officers of the Union Club for the gen-erously offered privileges of their Club House, and to Mr. Charles W. Bingham, Mr. W. S. Kerruish, Dr. H. H. Powell, and especially to Mr. E. P. Williams, for their kindness in making the needed arrangements for the meeting, and for the pleasant ride and collation provided by them.

The minutes of Thursday's sessions were read and approved.
On motion, the Association then adjourned.

CHARLES J. BUCKINGHAM, *Treasurer, in account with the* AMERICAN PHILOLOGICAL ASSOCIATION, *July* 13, 1880 — *July* 12, 1881.

DR.		CR.	
Balance in Treasury, July 12, 1880, ...	$414.05	Printing "Transactions" and "Proceedings," . . .	$529.10
Fees and Assessments since received, ...	543.58	Expenses of session in Philadelphia, ...	16.86
Sales of "Transactions,"	35.00	" Assistant Secretary, ...	36.15
Interest, ...	24.00	" " Secretary, ...	2.46
		" " Treasurer, ...	8.60
		Printing Bills and Receipts, ... : . .	5.00
		Balance in Treasury to new account, ...	418.46
	$1,016.63		$1,016.63

E. E.   CHARLES J. BUCKINGHAM, *Treasurer.*

There is also in the hands of the Treasurer one Bond of the Connecticut Western Railroad for Five Hundred Dollars, with nine overdue and unpaid coupons.

C. J. B.

Having examined the above accounts, and compared them with the vouchers, we certify them to be correct.

(Signed)   F. A. MARCH,   } *Auditing Committee.*
             T. D. SEYMOUR,   }

CLEVELAND, OHIO, July 12, 1881.

OFFICERS OF THE ASSOCIATION.

1881–82.

PRESIDENT.

FREDERIC D. ALLEN.

VICE-PRESIDENTS.

MILTON W. HUMPHREYS,
MARTIN L. D'OOGE.

SECRETARY AND CURATOR.

CHARLES R. LANMAN.

TREASURER.

CHARLES J. BUCKINGHAM.

EXECUTIVE COMMITTEE.

The officers above named, and —

BASIL L. GILDERSLEEVE,
WILLIAM W. GOODWIN,
THOMAS R. PRICE,
J. HAMMOND TRUMBULL,
WILLIAM D. WHITNEY.

3

MEMBERS OF THE AMERICAN PHILOLOGICAL ASSOCIATION.*

Eben Alexander, East Tennessee University, Knoxville, Tenn.
Frederic D. Allen, Harvard University, Cambridge, Mass.
William F. Allen, University of Wisconsin, Madison, Wis.
Joseph Anderson, Waterbury, Conn.
N. L. Andrews, Madison University, Hamilton, N. Y.
Stephen P. Andrews, 201 East Thirty-fourth Street, New York, N. Y.
William H. Appleton, Swarthmore College, Swarthmore, Pa.
Cecil F. P. Bancroft, Phillips Academy, Andover, Mass.
J. W. Barnes, Perth Amboy, N. J.
Charles C. Bates, Plymouth, Mass.
H. Louis Baugher, Pennsylvania College, Gettysburg, Pa.
C. T. Beatty, High School, East Saginaw, Mich.
James S. Blackwell, University of Missouri, Columbia, Mo.
E. W. Blyden, Monrovia College, Liberia.
James R. Boise, University of Chicago, Chicago, Ill.
Charles E. Brandt, Farmington, Conn.
H. C. G. Brandt, Johns Hopkins University, Baltimore, Md.
Fisk P. Brewer, Iowa College, Grinnell, Iowa.
John A. Broadus, Southern Baptist Theol. Seminary, Louisville, Ky.
Charles J. Buckingham, Poughkeepsie, N. Y.
L. H. Buckingham, English High School, Boston, Mass.
Henry F. Burton, University of Rochester, Rochester, N. Y. (47 North Avenue).
Henry A. Buttz, Drew Theological Seminary, Madison, N. J.
Richard E. Call, Mohawk, N. Y.
W. B. Carr, Leesburgh, Loudoun Co., Va.
Franklin Carter, Williams College, Williamstown, Mass.
William C. Cattell, Lafayette College, Easton, Pa.
Talbot W. Chambers, 70 West Thirty-sixth Street, New York, N. Y.
Elie Charlier (Life Member), Central Park, New York, N. Y.
Francis J. Child, Harvard University, Cambridge, Mass.
Lyman Coleman, Lafayette College, Easton, Pa.

* The addresses of this list have been corrected to date of printing, so far as practicable.

Albert S. Cook, Johns Hopkins University, Baltimore, Md.
Jacob Cooper, New Brunswick, N. J.
Howard Crosby, University of New York, New York, N. Y.
Edward P. Crowell, Amherst College, Amherst, Mass.
Edward De Merritte, Chauncy-Hall School, Boston, Mass.
Schele De Vere, University of Virginia, Va.
Martin L. D'Ooge, Michigan University, Ann Arbor, Mich.
T. T. Eaton, Petersburg, Va.
August Hjalmar Edgren, University of Lund, Sweden.
George R. Entler, Franklin, N. Y.
Carl W. Ernst, office of *Daily Advertiser*, Boston, Mass.
Ambrose J. Faust, Washington, D. C.
O. M. Fernald, Williams College, Williamstown, Mass.
Gustavus Fischer, Rutgers College, New Brunswick, N. J.
M. M. Fisher, University of Missouri, Columbia, Mo.
A. J. Fleet, University of Missouri, Columbia, Mo.
John Forsyth, U. S. Military Academy, West Point, N. Y.
H. H. Furness, 222 West Washington Square, Philadelphia, Pa.
Samuel Garner, Johns Hopkins University, Baltimore, Md.
James M. Garnett, St. John's College, Annapolis, Md.
Henry Garst, Otterbein University, Westerville, O.
B. L. Gildersleeve, Johns Hopkins University, Baltimore, Md.
D. C. Gilman, Johns Hopkins University, Baltimore, Md.
William W. Goodwin, Harvard University, Cambridge, Mass.
Richard T. Greener, Howard University, Washington, D. C.
James B. Greenough, Harvard University, Cambridge, Mass.
Ephraim W. Gurney, Harvard University, Cambridge, Mass.
Isaac H. Hall, 725 Chestnut Street, Philadelphia, Pa.
William G. Hammond, University of Iowa, Iowa City, Iowa.
H. McL. Harding, Brooks Academy, Cleveland, O.
Albert Harkness, Brown University, Providence, R. I.
William R. Harper, Baptist Theological Seminary, Chicago, Ill.
Caskie Harrison, University of the South, Sewanee, Tenn.
Samuel Hart, Trinity College, Hartford, Conn.
B. J. Hawthorne, State Agricultural College, Coryallis, Oregon.
Charles R. Hemphill, Clarksville, Tenn.
Theophilus Heness, 159 York Street, New Haven, Conn.
Thomas Wentworth Higginson, Cambridge, Mass.
Newton B. Hobart, 845 Broadway, Cleveland, O.
George O. Holbrooke, Trinity College, Hartford, Conn.
Selah Howell, Christian Biblical Institute, Standfordville, N. Y.
E. R. Humphreys, 129 West Chester Park, Boston, Mass.
Milton W. Humphreys, Vanderbilt University, Nashville, Tenn.
John T. Huntington, Hartford, Conn.
Ashley D. Hurt, Male High School, Louisville, Ky.

George W. Ingraham, Sing Sing, N. Y.

Edwin E. Johnson, Trinity College, Hartford, Conn.

John L. Johnson, University of Mississippi, Oxford, Miss.

Elisha Jones, Michigan University, Ann Arbor, Mich.

Asahel C. Kendrick, University of Rochester, Rochester, N. Y.

Robert P. Keep, Williston Seminary, Easthampton, Mass.

W. S. Kerruish, Cleveland, Ohio.

John B. Kieffer, Mercersburg College, Mercersburg, Pa.

D. B. King, Lafayette College, Easton, Pa.

Louis Kistler, Northwestern University, Evanston, Ill.

Miss Mary H. Ladd, Chauncy-Hall School, Boston, Mass.

Charles R. Lanman, Harvard University, Cambridge, Mass.

Lewis H. Lapham, 78 Gold Street, New York, N. Y.

C. W. Larned, U. S. Military Academy, West Point, N. Y.

Albert G. Lawrence, Newport, R. I.

R. F. Leighton, 109 Lefferts Place, Brooklyn, N. Y.

John M. Leonard, University of Missouri, Columbia, Mo.

John R. Leslie, Newport, R. I.

Thomas B. Lindsay, 20 Beacon Street, Boston, Mass.

William S. Liscomb, Providence, R. I.

Thomas R. Lounsbury, Yale College, New Haven, Conn. (22 Lincoln Street).

Rebecca S. Lowrey, 162 West Forty-seventh Street, New York, N. Y.

Merrick Lyon, University Grammar School, Providence, R. I.

W. Gordon McCabe, University School, Petersburg, Va.

Irwin P. McCurdy, Frederick Female Seminary, Frederick City, Md.

Joseph H. McDaniels, Hobart College, Geneva, N. Y.

Miss Harriet E. McKinstry, Lake Erie Female Seminary, Painesville, O.

Irving J. Manatt, Marietta College, O.

Francis A. March, Lafayette College, Easton, Pa.

D. S. Martin, Rutgers Female College, New York, N. Y.

Winfred R. Martin, 20 East Twenty-eighth Street, New York, N. Y.

R. H. Mather, Amherst College, Amherst, Mass.

Charles M. Mead, Andover Theological Seminary, Andover, Mass.

John Meigs, Hill School, Pottstown, Pa.

Augustus C. Merriam, Columbia College, New York, N. Y.

Charles D. Morris, Johns Hopkins University, Baltimore, Md.

F. A. Muhlenberg, University of Pennsylvania, Philadelphia, Pa. (4307 Walnut Street).

Wilfred H. Munro, De Veaux College, Suspension Bridge, N. Y.

Joseph H. Myers, Milton-on-Hudson, N. Y.

C. K. Nelson, St. John's College, Annapolis, Md.

Edward North, Hamilton College, Clinton, N. Y.

J. O. Notestein, University of Wooster, O.

Bernard F. O'Connor, Johns Hopkins University, Baltimore, Md.

Howard Osgood, Rochester Theological Seminary, Rochester, N. Y.
Charles P. Otis, Massachusetts Institute of Technology, Boston, Mass.
W. B. Owen, Lafayette College, Easton, Pa.
Lewis R. Packard, Yale College, New Haven, Conn. (226 Church Street).
William A. Packard, College of New Jersey, Princeton, N. J.
E. G. Parsons, Sumner Academy, South Byfield, Mass.
Tracy Peck, Yale College, New Haven, Conn. (87 Wall Street).
William T. Peck, High School, Providence, R. I.
W. R. Perkins, Cornell University, Ithaca, N. Y.
Bernadotte Perrin, Western Reserve College, Hudson, O.
William C. Poland, Brown University, Providence, R. I. (74 Hope Street).
Samuel Porter, National Deaf-Mute College, Washington, D. C.
L. S. Potwin, Western Reserve College, Hudson, O.
John W. Powell, Washington, D. C.
Thomas R. Price, University of Virginia, Va.
Charles W. Reid, Allegheny College, Meadville, Pa.
DeWitt T. Reiley, Rutgers College, New Brunswick, N. J.
William A. Reynolds, Wilmington, Del.
Leonard W. Richardson, Trinity College, Hartford, Conn.
W. G. Richardson, Austin College, Sherman, Texas.
Ezekiel G. Robinson, Brown University, Providence, R. I.
Lawrence Rust, Kenyon College, Gambier, O.
Julius Sachs, Classical School, 38 W. Fifty-ninth St., New York, N. Y.
Wesley C. Sawyer, Lawrence University, Appleton, Wis.
Henry Schliemann, Athens, Greece.
C. P. G. Scott, Columbia College, New York, N. Y.
Walter Q. Scott, Wooster University, Wooster, O.
Jotham B. Sewall, Thayer Academy, South Braintree, Mass.
Thomas D. Seymour, Yale College, New Haven, Conn. (174 Orange St.).
Joseph Alden Shaw, Highland Military Academy, Worcester, Mass.
Henry E. Shepherd, Baltimore, Md.
L. A. Sherman, Hopkins Grammar School, New Haven, Conn.
Charles Short, Columbia College, New York, N. Y.
E. G. Sihler, Classical School, 38 W. Fifty-ninth St., New York, N. Y.
Edward Snyder, Illinois Industrial University, Champaign, Ill.
A. B. Stark, Logan Female College, Russellville, Ky.
Benjamin F. Stem, Classical Institute, Easton, Pa.
Frederick Stengel, School of Mines, Columbia College, New York, N. Y.
William A. Stevens, Rochester Theological Seminary, Rochester, N. Y.
Edward F. Stewart, Easton, Pa.
Austin Stickney, 35 West Seventeenth Street, New York, N. Y.
Charles W. Super, Ohio University, Athens, O.
Miss A. L. Sweetser, Mount Holyoke Seminary, South Hadley, Mass.
Franklin Taylor, High School, Philadelphia, Pa.
Zachary P. Taylor, Central High School, Cleveland, O.

John Tetlow, Girls' Latin School, Boston, Mass.
J. Henry Thayer, Andover Theological Seminary, Andover, Mass.
Calvin Thomas, Michigan University, Ann Arbor, Mich.
William E. Thompson, Genesee Wesleyan Seminary, Lima, N. Y.
Crawford H. Toy, Harvard University, Cambridge, Mass.
J. Hammond Trumbull, Hartford, Conn.
Francis W. Tustin, University at Lewisburgh, Pa.
Milton Valentine, Pennsylvania College, Gettysburg, Pa.
James C. Van Benschoten, Wesleyan University, Middletown, Conn.
Addison VanName, Yale College, New Haven, Conn.
C. Osborne Ward, 486 Adelphi Street, Brooklyn, N. Y.
Miss Julia E. Ward, Mount Holyoke Seminary, South Hadley, Mass.
Henry C. Warren, 67 Mount Vernon Street, Boston, Mass.
Minton Warren, Johns Hopkins University, Baltimore, Md.
W. B. Webster, Military Institute, Norfolk, Va.
R. F. Weidner, 1330 Franklin Street, Philadelphia, Pa.
James C. Welling, Columbian University, Washington, D. C.
Benjamin W. Wells, Friends' School, Providence, R. I.
J. B. Weston, Antioch College, Yellow Springs, O.
Mrs. A. E. Weston, Antioch College, Yellow Springs, O.
Albert S. Wheeler, Sheffield Scientific School, New Haven, Conn. (27 Eld Street).
Benjamin I. Wheeler, Providence, R. I.
John Williams White, Harvard University, Cambridge, Mass.
William D. Whitney, Yale College, New Haven, Conn.
W. H. Whitsitt, Southern Baptist Theological Seminary, Louisville, Ky.
J. Colver Wightman (Life Member), Taunton, Mass.
Alonzo Williams, Brown University, Providence, R. I.
R. H. Willis, Norwood, Nelson County, Va.
Edwin H. Wilson, Middletown, Conn.
William Epiphanius Wilson, King's College, Windsor, Nova Scotia.
Charles H. Woodman, New York, N. Y.

THE FOLLOWING LIBRARIES SUBSCRIBE FOR THE ANNUAL PUBLICATIONS OF THE ASSOCIATION.

Library of the Theological Seminary, Andover, Mass.
Library of Michigan University, Ann Arbor, Mich.
Johns Hopkins University Library, Baltimore, Md.
Young Men's Library, Buffalo, N. Y.
Harvard College Library, Cambridge, Mass.
Dartmouth College Library, Hanover, N. H.
State University Library, Iowa City, Iowa.

The Astor Library, New York, N. Y.
The Mercantile Library, Philadelphia, Penn.
Library of the University of the South, Sewanee, Tenn.
Library of Colby University, Waterville, Maine.
King's College Library, Windsor, Nova Scotia.
The Free Public Library, Worcester, Mass.

CONSTITUTION

OF THE

AMERICAN PHILOLOGICAL ASSOCIATION.

ARTICLE I. — NAME AND OBJECT.

1. This Society shall be known as "The American Philological Association."

2. Its object shall be the advancement and diffusion of philological knowledge.

ARTICLE II. — OFFICERS.

1. The officers shall be a President, two Vice-Presidents, a Secretary and Curator, and a Treasurer.

2. There shall be an Executive Committee of ten, composed of the above officers and five other members of the Association.

3. All the above officers shall be elected at the last session of each annual meeting.

ARTICLE III. — MEETINGS.

1. There shall be an annual meeting of the Association in the city of New York, or at such other place as at a preceding annual meeting shall be determined upon.

2. At the annual meeting, the Executive Committee shall present an annual report of the progress of the Association.

3. The general arrangements of the proceedings of the annual meeting shall be directed by the Executive Committee.

4. Special meetings may be held at the call of the Executive Committee, when and where they may decide.

ARTICLE IV. — MEMBERS.

1. Any lover of philological studies may become a member of the Association by a vote of the Executive Committee and the payment of five dollars as initiation fee, which initiation fee shall be considered the first regular annual fee.

2. There shall be an annual fee of five dollars from each member, failure in payment of which for two years shall *ipso facto* cause the membership to cease.

3. Any person may become a life member of the Association by the payment of fifty dollars to its treasury, and by vote of the Executive Committee.

ARTICLE V. — SUNDRIES.

1. All papers intended to be read before the Association must be submitted to the Executive Committee before reading, and their decision regarding such papers shall be final.

2. Publications of the Association, of whatever kind, shall be made only under the authorization of the Executive Committee.

ARTICLE VI. — AMENDMENTS.

Amendments to this Constitution may be made by a vote of two thirds of those present at any regular meeting subsequent to that in which they have been proposed.

PUBLICATIONS OF THE ASSOCIATION.

THE annually published "Proceedings" of the American Philological Association contain an account of the doings at the annual meeting, brief abstracts of the papers read, reports upon the progress of the Association, and lists of its officers and members.

The annually published "Transactions" give the full text of such articles as the Executive Committee decide to publish. The Proceedings are bound with them as an Appendix.

The following tables show the authors and contents of the first twelve volumes of Transactions:

1869–1870. — Volume I.

Hadley, J.: On the nature and theory of the Greek accent.
Whitney, W. D.: On the nature and designation of the accent in Sanskrit.
Goodwin, W. W.: On the aorist subjunctive and future indicative with ὅπως and οὐ μή.
Trumbull, J. Hammond: On the best method of studying the North American languages.
Haldeman, S. S.: On the German vernacular of Pennsylvania.
Whitney, W. D.: On the present condition of the question as to the origin of language.
Lounsbury, T. R.: On certain forms of the English verb which were used in the sixteenth and seventeenth centuries.
Trumbull, J. Hammond: On some mistaken notions of Algonkin grammar, and on mistranslations of words from Eliot's Bible, etc.
VanName, A.: Contributions to Creole grammar.
Proceedings of the preliminary meeting (New York, 1868), of the first annual session (Poughkeepsie, 1869), and of the second annual session (Rochester, 1870).

1871. — Volume II.

Evans, E. W.: Studies in Cymric philology.
Allen, F. D.: On the so-called Attic second declension.
Whitney, W. D.: Strictures on the views of August Schleicher respecting the nature of language and kindred subjects.
Hadley, J.: On English vowel quantity in the thirteenth century and in the nineteenth.
March, F. A.: Anglo-Saxon and Early English pronunciation.
Bristed, C. A.: Some notes on Ellis's Early English Pronunciation.

Trumbull, J. Hammond :   On Algonkin names for man.

Greenough, J. B. : On some forms of conditional sentences in Latin, Greek, and Sanskrit.

Proceedings of the third annual session, New Haven, 1871.

1872. — Volume III.

Evans, E. W.: Studies in Cymric philology.

Trumbull, J. Hammond : Words derived from Indian languages of North America.

Hadley, J.: On the Byzantine Greek pronunciation of the tenth century, as illustrated by a manuscript in the Bodleian Library.

Stevens, W. A. : On the substantive use of the Greek participle.

Bristed, C. A.: Erroneous and doubtful uses of the word *such.*

Hartt, C. F.: Notes on the Lingoa Geral, or Modern Tupí of the Amazonas.

Whitney, W. D. : On material and form in language.

March, F. A. : Is there an Anglo-Saxon language ?

March, F. A. : On some irregular verbs in Anglo-Saxon.

Trumbull, J. Hammond : Notes on forty versions of the Lord's Prayer in Algonkin languages.   •

Proceedings of the fourth annual session, Providence, 1872.

1873. — Volume IV.

Allen, F. D.: The Epic forms of verbs in *ɷ.*

Evans, E. W. : Studies in Cymric philology.

Hadley, J. : On Koch's treatment of the Celtic element in English.

Haldeman, S. S.: On the pronunciation of Latin, as presented in several recent grammars.

Packard, L. R.: On some points in the life of Thucydides.

Goodwin, W. W.: On the classification of conditional sentences in Greek syntax.

March, F. A. : Recent discussions of Grimm's law.

Lull, E. P. : Vocabulary of the language of the Indians of San Blas and Caledonia Bay, Darien.

Proceedings of the fifth annual session, Easton, 1873.

1874. — Volume V.

Tyler, W. S. : On the prepositions in the Homeric poems.

Harkness, A. : On the formation of the tenses for completed action in the Latin finite verb.

Haldeman, S. S.: On an English vowel-mutation, present in *cag, keg.*

Packard, L. R.: On a passage in Homer's Odyssey (x. 81–86).

Trumbull, J. Hammond : On numerals in American Indian languages, and the Indian mode of counting.

Sewall, J. B. : On the distinction between the subjunctive and optative modes in Greek conditional sentences.

Morris, C. D. : On the age of Xenophon at the time of the Anabasis.
Whitney, W. D. : φύσει or θέσει — natural or conventional ?

Proceedings of the sixth annual session, Hartford, 1874.

1875. — Volume VI.

Harkness, A. : On the formation of the tenses for completed action in the Latin finite verb.
Haldeman, S. S. : On an English consonant-mutation, present in *proof, prove.*
Carter, F. : On Begemann's views as to the weak preterit of the Germanic verbs.
Morris, C. D. : On some forms of Greek conditional sentences.
Williams, A. : On verb-reduplication as a means of expressing completed action.
Sherman, L. A. : A grammatical analysis of the Old English poem " The Owl and the Nightingale."

Proceedings of the seventh annual session, Newport, 1875.

1876. — Volume VII.

Gildersleeve, B. L. : On εἰ with the future indicative and ἐάν with the subjunctive in the tragic poets.
Packard, L. R. : On Grote's theory of the structure of the Iliad.
Humphreys, M. W. : On negative commands in Greek.
Toy, C. H. : On Hebrew verb-etymology.
Whitney, W. D. : A botanico-philological problem.
Goodwin, W. W. : On *shall* and *should* in protasis, and their Greek equivalents.
Humphreys, M. W. : On certain influences of accent in Latin iambic trimeters.
Trumbull, J. Hammond : On the Algonkin verb.
Haldeman, S. S. : On a supposed mutation between *l* and *u.*

Proceedings of the eighth annual session, New York, 1876.

1877. — Volume VIII.

Packard, L. R. : Notes on certain passages in the Phaedo and the Gorgias of Plato.
Toy, C. H. : On the nominal basis of the Hebrew verb.
Allen, F. D. : On a certain apparently pleonastic use of ὡς.
Whitney, W. D. : On the relation of surd and sonant.
Holden, E. S. : On the vocabularies of children under two years of age.
Goodwin, W. W. : On the text and interpretation of certain passages in the Agamemnon of Aeschylus.
Stickney, A. : On the single case-form in Italian.
Carter, F. : On Willmann's theory of the authorship of the Nibelungenlied.
Sihler, E. G. : On Herodotus's and Aeschylus's accounts of the battle of Salamis.
Whitney, W. D. : On the principle of economy as a phonetic force.
Carter, F. : On the Kürenberg hypothesis.
March, F. A. : On dissimilated gemination.

Proceedings of the ninth annual session, Baltimore, 1877.

1878. — Volume IX.

Gildersleeve, B. L.: Contributions to the history of the articular infinitive.
Toy, C. H.: The Yoruban language.
Humphreys, M. W.: Influence of accent in Latin dactylic hexameters.
Sachs, J.: Observations on Plato's Cratylus.
Seymour, T. D.: On the composition of the Cynegeticus of Xenophon.
Humphreys, M. W.: Elision, especially in Greek.

Proceedings of the tenth annual session, Saratoga, 1878.

1879. — Volume X.

Toy, C. H.: Modal development of the Semitic verb.
Humphreys, M. W.: On the nature of cæsura.
Humphreys, M. W.: On certain effects of elision.
Cook, A. S.: Studies in the Heliand.
Harkness, A.: On the development of the Latin subjunctive in principal clauses.
D'Ooge, M. L.: The original recension of the De Corona.
Peck, T.: The authorship of the Dialogus de Oratoribus.
Seymour, T. D.: On the date of the Prometheus of Aeschylus.

Proceedings of the eleventh annual session, Newport, 1879.

1880. — Volume XI.

Humphreys, M. W.: A contribution to infantile linguistic.
Toy, C. H.: The Hebrew verb-termination *un.*
Packard, L. R.: The beginning of a written literature in Greece.
Hall, I. H.: The declension of the definite article in the Cypriote inscriptions.
Sachs, J.: Observations on Lucian.
Sihler, E. G.: Virgil and Plato.
Allen, W. F.: The battle of Mons Graupius.
Whitney, W. D.: On inconsistency in views of language.
Edgren, A. H.: The kindred Germanic words of German and English, exhibited
    with reference to their consonant relations.

Proceedings of the twelfth annual session, Philadelphia, 1880.

1881. — Volume XII.

Whitney, W. D.: On Mixture in Language.
Toy, C. H.: The home of the primitive Semitic race.
March, F. A.: Report of the committee on the reform of English spelling.
Wells, B. W.: History of the *a*-vowel, from Old Germanic to Modern English.
Seymour, T. D.: The use of the aorist participle in Greek.
Sihler, E. G.: The use of abstract verbal nouns in -σις in Thucydides.

Proceedings of the thirteenth annual session, Cleveland, 1881.

The Proceedings of the American Philological Association are distributed gratis upon application until they are out of print.

Separate copies of articles printed in the Transactions are given to the authors for distribution.

The " Transactions *for* " any given year are not always published in that year. To avoid mistakes in ordering back volumes, please state — not the year of publication, but rather — the year *for* which the Transactions are desired, adding also the volume-number, according to the following table :

The Transactions for 1869 *and* 1870 form Volume I.
    "   "   " 1871 form Volume II.
    "   "   " 1872   "   "   III.
    "   "   " 1873   "   "   IV.
    "   "   " 1874   "   "   V.
    "   "   " 1875   "   "   VI.
    "   "   " 1876   "   "   VII.
    "   "   " 1877   "   "   VIII.
    "   "   " 1878   "   "   IX.
    "   "   " 1879   "   "   X.
    "   "   " 1880   "   ".   XI.
    "   "   " 1881   "   "   XII.

The price of any one of these volumes separately is $2. Members of the Association can obtain them for $1.50 a volume. The first volume will not be sold separately.

Temporary Reduction in the Price of Complete Sets.

Single COMPLETE SETS of the Transactions will be sold, until further notice, at twelve dollars a set.

It is especially appropriate that *American* Libraries should exert themselves to procure this series while it may be had. It is the work of *American* scholars, and contains many valuable articles not elsewhere accessible ; and, aside from these facts, as the first collection of essays in general philology made in this country, it is sure to be permanently valuable for the history of American scholarship.

UNIVERSITY OF VIRGINIA LIBRARY